40p

Printout No 7

Fortnightly Sept 15—Sept 28 1983

LOAD RUNNER

THE GALAXY'S FIRST COMPUTER COMIC

WHILE ATTEMPTING TO ESCAPE FROM A *PREHISTORIC MAZE*, LOAD RUNNER IS RESCUED BY *PETRA HAWKE*, ANOTHER HUMAN *STRANDED* IN THIS STRANGE COMPUTER-CONTROLLED WORLD. HOWEVER, ANOTHER PERIL THREATENS THEM AS THEY REACH THE *EXIT*...

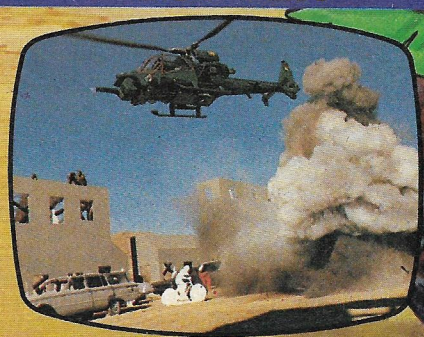
PTERODACTYL! MIND THOSE *CLAWS*, LOAD RUNNER!

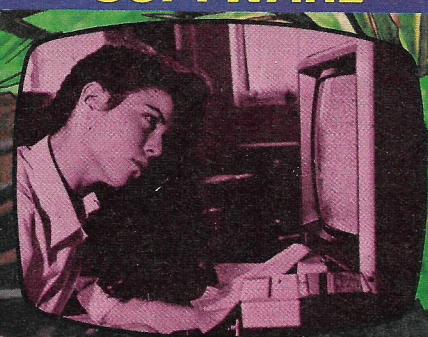
I'M TRYING, I'M *TRYING*!!

NEW ELECTRONS TO BE WON

COMPUTER 'COPTER

SCHOOL FOR SOFTWARE





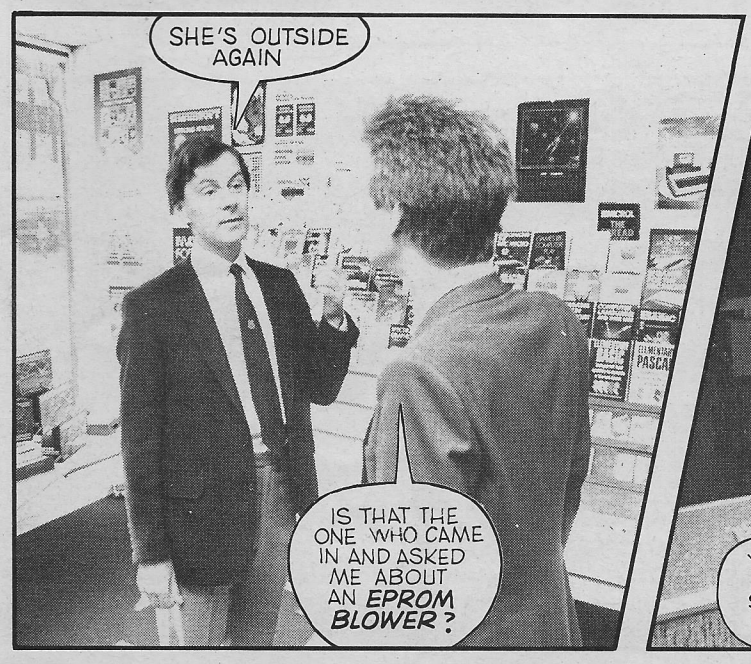
SUDDENLY-!
FZZZ-TT
A SECURITY ROBOT WHICH TRIGGERS... SOMETHING AT THE VERY EDGE OF LOAD RUNNER'S MIND.
SECURITY ROBOT! NEVER THOUGHT I'D BE GLAD TO SEE ONE!
WELL? WHAT ARE YOU WAITING FOR? TAKE IT!
HEY, YOU OK?
NEVER MIND, I'LL DO IT.

OH, COME ON, MAN. YOU'RE NO GOOD TO ME LIKE THIS. LET'S GO. HERE'S YOUR CRASH GUN.
IT'S... UH, I MEAN...
I'M SORRY, I JUST DON'T REMEMBER... ANYTHING.
END GAME. BREAK PROGRAM AT 10,050. RUN VIDEO MODE.
=INVALID VARIABLE. NO NO DATA ON FILE. STANDING BY...
HEY, LOAD RUNNER... GRAB SOME OF THIS DEAD WOOD WHILE I CUT THROUGH HERE.
HUH. ONLY JUST ENOUGH POWER LEFT.
YES, BUT... PTERODACTYL MEAT? UGH... AND IT'S NOT EVEN REAL.
LOOK, WHEN YOU'VE BEEN HERE AS LONG AS I HAVE, YOU EAT WHAT YOU CAN, NEVER MIND THE PHILOSOPHICAL IMPLICATIONS. ANYWAY, HOW DID YOU GET HERE?
YOU'RE GOING TO... EAT THAT THING? IT'S A HOLOGRAM - IT EXISTS ONLY IN OUR MINDS.
YEAH, AND SOON IT WILL EXIST ONLY IN OUR STOMACHS. I HAVEN'T EATEN IN DAYS.
WHAT FOR?
FOR A FIRE, OF COURSE. I'M JUST GOING TO CUT THE MEAT. DO YOU PREFER WING OR LEG?
ELSEWHERE -
=NEW PROGRAM SELECTED. LOADING...
=PROGRAM LOADED. RUN.
WELL, I WAS A LINE VERIFIER FOR SELEC -SOUTH EAST ELECTRICITY- AND I WAS CHECKING OUT A PECULIAR POWER DRAIN ON THE EDGE OF OUR SECTOR.
I REMEMBER IT REALLY WELL. IT WAS MY 19TH BIRTHDAY.
...AND THAT'S IT, SO FAR. I DON'T RE-MEMBER ANYTHING BEFORE I WOKE UP IN THE COMPUTER CITY*, BUT I KNOW THERE'S MORE THAN... WELL, ALL THIS.
SO YOU DON'T RECALL ANYTHING OF THE REAL WORLD, OUT-SIDE THIS OVER-GROWN ARCADE GAME?
THIS ISN'T REAL? TELL ME HOW YOU GOT HERE... PERHAPS IT WILL JOG MY MEMORY.
*AS DISPLAYED IN PRINTOUT No. 2.

I TRACED THE DRAIN TO A WAREHOUSE WHERE I FOUND THIS ENORMOUS MAINFRAME COMPUTER. IT CERTAINLY WASN'T AN AUTHORISED INSTALLATION. IT WAS WHILE I WAS CIRCUIT TESTING THAT...
HEY, WHAT'S THAT NOISE? HA! LOOK AT THAT...
...ANCIENT AIRPLANES!
OOOF!! MY ARM!
YOU... YOU...! I'LL GET YOU FOR THAT!
THANKS PETRA. THAT WAS TOO CLOSE!
I'VE SEEN THIS BEFORE. I KNEW IT WOULD DO THAT.
=I SAY, OLD CHAP!
A...MECHANIC?
WHERE DID ALL THIS COME FROM? THIS WASN'T HERE BEFORE! WHO ARE YOU?
YOUR NO. 2, SKIPPER. THE OLD CRATE'S TOPPED UP AND READY FOR THE OFF.
THIS IS ANOTHER GAME AND HE'S JUST AN ANDROID. I DISMANTLED HIM LAST TIME I WAS HERE.
THAT WASN'T VERY FRIENDLY! WHY DID YOU DO THAT?
HE IGNORED ME. HE IS NOW, LOOK. IT'S AS THOUGH I'M NOT HERE.
THAT WAS ONE OF THE FINEST ANDROIDS I'VE EVER SEEN. IT WAS ALMOST A SHAME TO DESTROY IT.
WELL AT LEAST YOU REMEMBER SOMETHING. HEY, CAN YOU REALLY FLY A PLANE?
LOOK, THERE'S ONLY THREE CONTROLS. HOW CAN YOU GO WRONG?
THREE?
UP, FORWARD AND FIRE.
HOW DO YOU GET DOWN?
DON'T ASK!
THERE'S A PLANE COMING UP. DO YOU SUPPOSE HE'S A FRIEND OR A FOE?
FOE!
BRAKKA BRAKKA
NEXT PRINTOUT: DOGFIGHT!
SCRIPT
STEVE CRADDOCK
ARTWORK
PETER DENNIS
LETTERS
MICK HOLLINGWORTH

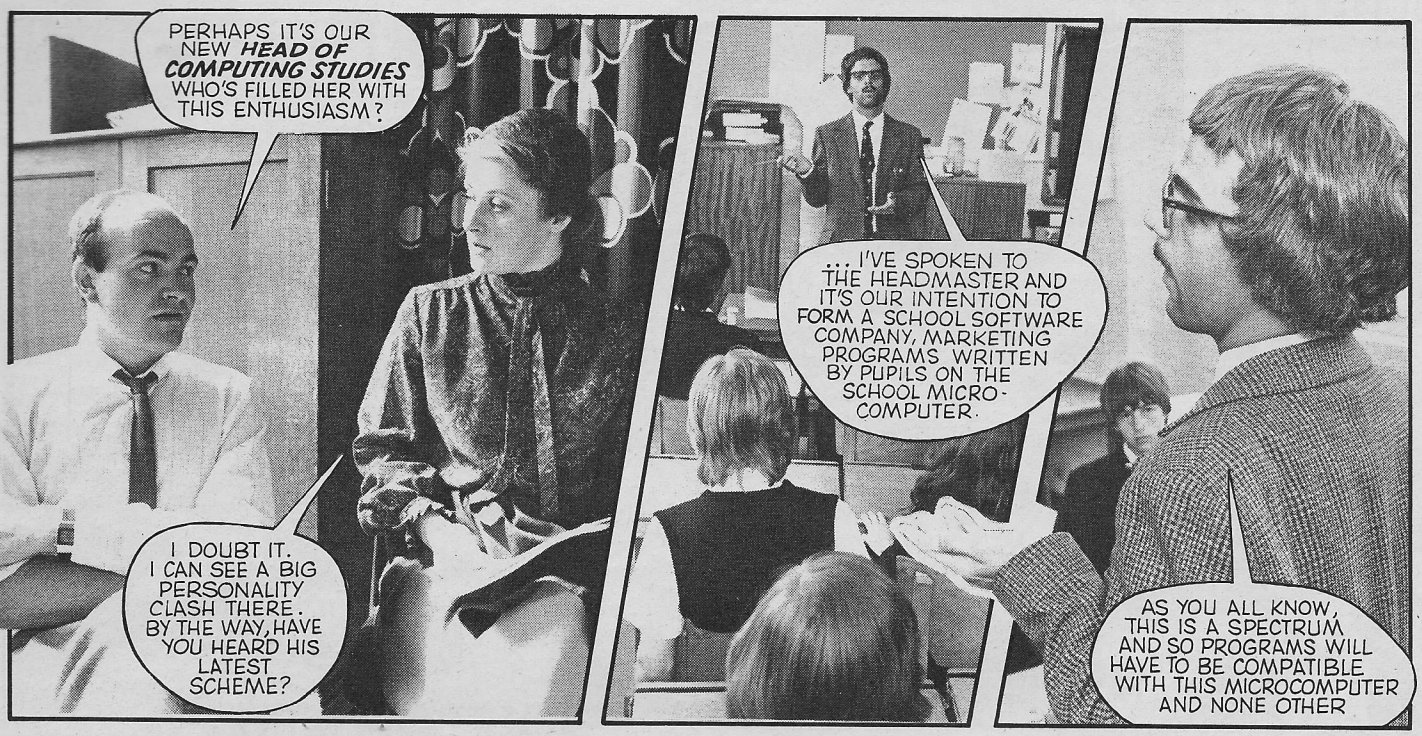
SCHOOL FOR SOFTWARE

SCRIPT- **FRANK HOPKINSON**
PHOTOS- **HENRY ARDEN**
LETTERS- **JACK POTTER**



BUFFER MICRO SHOP
THAT'S NO WAY TO SPEAK ABOUT A POTENTIAL CUSTOMER. SHE'S VERY INTELLIGENT. IT'S JUST THAT SHE DOESN'T LOOK LIKE ALL THE OTHERS WE GET IN HERE
HMM
NINE O' CLOCK. I'M GOING TO BE LATE FOR SCHOOL— THORNTON'LL PERFORM AS USUAL
LATE AGAIN BEVERLY JEAVONS
YES, BUT TEN PAST NINE'S EARLY FOR ME, MR THORNTON
ISN'T IT AMAZING HOW EVERYONE IN THE CLASS CAN GET HERE BY 8.45? EVERYONE EXCEPT YOU!
I CAN'T HELP IT IF THEY'RE ALL FREAKS ... SIR
I DON'T SUPPOSE YOU MANAGED TO DO THAT ESSAY ON KEATS DID YOU?
NO, YOU'RE RIGHT, I DIDN'T. I WAS TOO BUSY READING UP FOR COMPUTING ... SIR
IN THE STAFFROOM-
AM I THE ONLY ONE WHO HAS TROUBLE WITH BEVERLY JEAVONS, OR DOES EVERYBODY GET IT?
SHE CAN BE A HANDFUL. IT'S JUST HER ATTITUDE, SHE DOESN'T LIKE CONFORMING
LOOK WHAT I CAUGHT HER READING THIS MORNING. MY GUY OR JACKIE I COULD UNDERSTAND, BUT NOT THIS
SINCLAIR USER... YES, I WAS TALKING TO HER ABOUT THAT LAST WEEK. SHE'S THINKING OF GETTING A HOME COMPUTER

SCHOOL FOR SOFTWARE



AS IT HAPPENS I'VE GOT A PERFECT IDEA... I'LL SHOW DICKERSON SOME COLOURFUL GRAPHICS!
IF ATTR(A,R)=43 THEN GO TO 1000! -THAT SHOULD WORK
HI, BEV, WHAT ARE YOU DOING?
WHAT DOES IT LOOK LIKE, JUGGLING?
YOU'RE NOT THINKING OF ENTERING THE COMPETITION, ARE YOU?
YES, WHY?
I SHOULDN'T BOTHER. THERE'S NOT GOING TO BE TIME FOR THE WHOLE SCHOOL TO USE IT AND AS EVERYBODY KNOWS, WE'RE THE COMPUTER ENTHUSIASTS ROUND HERE
NEIL'S MUM'S HEAD OF THE PTA AND IT'S THEIR MONEY THAT PAID FOR IT
SO WHAT? IT'S FOR EVERYBODY'S USE.
IT'D BE A PITY IF IT LOST YOUR PROGRAM, THOUGH.
YOU'VE TURNED IT OFF!
IN A FRACTION OF A SECOND, BEV'S WORK IS GONE IN A RAM CRASH!

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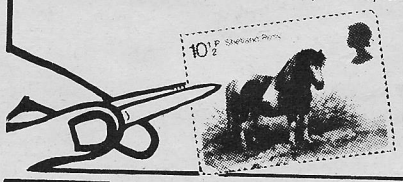
This outfit will be sent ABSOLUTELY FREE if you send us your name, address and 12½p postage. We will also send a selection of SPECIAL APPROVALS which you can buy for HALF PRICE (£1), purchase just the stamps you want or simply return the booklet undamaged, but first—ask your parents advice.



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STAMP COMPETITION

1. What country issued "The Penny Black" in 1840?.....
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4. Has the QUEEN MOTHER ever appeared on British stamps?.....

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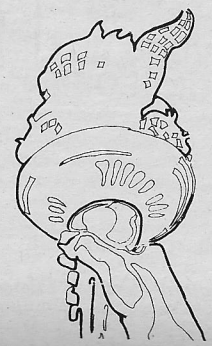
Annual subscription rate is £20. Single copes are £2 (including P & P).

Fill in the order form NOW to discover the American way of computing!



Send to: TIMEX SINCLAIR USER, ECC Publications Ltd., 196-200 Balls Pond Road, London N1 4AQ

Yes, I want to subscribe to TIMEX SINCLAIR USER at the special U.K. rate of £20 for 12 issues delivered to my door.

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N.B. This offer applies to UK subscribers only. Overseas rates available on request.

N.B. Subscribers to Sinclair Programs or Sinclair Projects should be aware that Timex Sinclair User will occasionally reproduce top articles that have appeared in our U.K. magazines.

COMPUTATIONS

THIS PRINTOUT'S Data Snake begins with the letter 'D'. Find the correct letter 'D' in the word maze and then follow the directions, which are given below, to spell out a word.
SECRET PATH: SE, NE, N, NE, SE, SE

T	M	E	T	T	M	A	R
C	L	A	I	B	A	E	R
A	D	B	G	D	E	L	L
F	L	I	S	A	L	F	O
U	U	L	L	I	B	R	W
N	G	A	R	T	C	E	P
A	R	E	R	D	M	O	U

A CENTIPEDE travels horizontally down the screen line by line. On reaching the bottom line it starts again at the top but one pod is added to its length. It is now 10 pods in length and fills half the screen width on the top line. If there are 32 lines on the screen, how long will the centipede be when it has grown to occupy every space on the screen?

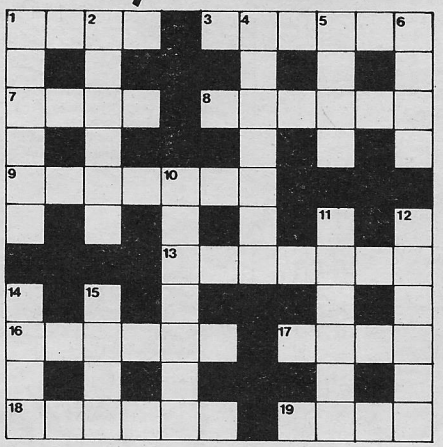
ANSWERS to the puzzles in last printout:

The data snake spelt out the words SPACE INVADER.

The odd man out amongst the computer terms was FISH AND CHIPS.

The next binary number in the sequence was 10111010.

Wordplotter 7



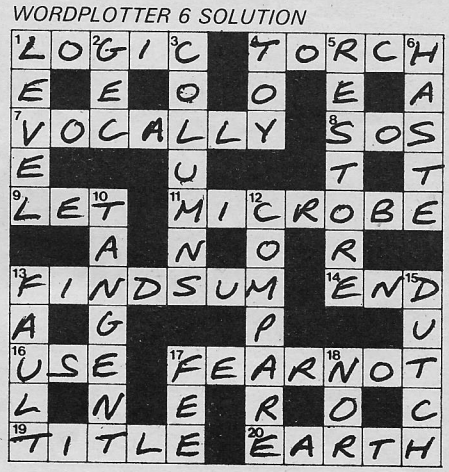
Across

1. What you do first when getting this comic? (4)
3. For its sake, switch off at night (6)
7. 365 programming periods (4)
8. Play with a computer without getting your feet wet? (3,3)
9. How Thomas More would describe computing, no doubt (7)
13. Bingo! A new idea for a computer game! (7)
16. Shape generation not by accident (6)
17. Positive or negative, 16 loses some of the French (4)
18. What the games player usually does. . . (6)
19. . . . and how he feels afterwards (4)

Down

1. 16 on screen or hard copy (6)
2. This doesn't describe a digital computer (6)
4. Like ICL and ULA (6)
5. Get money, from programming maybe (4)
6. Yin? On the contrary (4)
10. Like 1,2,3,4 but not between (7)
11. Writing programs secretly? (6)
12. Function little Edward browned off (6)
14. What the computer does on meeting LET C = A + B (4)
15. Lies around a bit of land (4)

WORDPLOTTER 6 SOLUTION



Virgin Games Competition Winners

Chris Cowland, 12, Tonbridge, Kent; Martin Thorpe, 13, West Byfleet, Surrey; Karl Todd, 14, Patricroft, Eccles; Alastair Minty, 14, Summerhill, Aberdeen; A. Brightley, 14, Wisbech, Cambs; John Chasey, 12, Goffs Oak, Herts; Anthony Williams, 11, Spalding, Lincs; Jeffrey Cranmer, 16, Old Penshaw, Tyne and Wear; R. Fergey, 11, East Tilbury, Essex; Andrew Chester, 15, Stoney Stanton, Leics; Lee De-Steunder, Leek, Staffs; Deepak Lodhia, 14, Wyken, Coventry; Koon Loong Chan, 14, Thame, Oxon; Richard Mitchell, 9 West Byfleet, Surrey; Adam Lees, 14, Guiseley, Leeds; Anthony Carr, 11, Leyland, Lancs; Robert Brady, 16, Romford, Essex; Stuart McLeland, 12, Wokingham, Berks; A. Brown, 12, Bedworth; Darren Hughes, 15, London N1; Mark Loader, 14, Luton, Beds; James McAuley, 13,Moseley, Birmingham; Douglas McIntyre, 15, Falkirk; Wayne Myers, 12, Stanmore, Middx; Michael Tsang, 14, Belfast.

DECODERS

LOAD RUNNER T-SHIRTS TO BE WON

Can you crack the code to claim your prize?

Below is the first of my encoded messages for Decoders. Hidden in the message are the Decoder Membership numbers of three lucky Decoders and a simple question. Using your special Decoder Cipher Book, decode the message to discover whether your membership number is included. If it is, and if you can answer the question correctly, claim your prize by writing your name, address and membership number on a postcard, together with the answer to the question, and post it to me at my installation base, to arrive not later than September 30. Don't forget to state whether you require small, medium, or large size.

The encoded message is as follows:
(Keyword No 2)

QKT ERYDX GRFOTNP JNT:
HGT ZTNH QVH GAGT
HGT QVH IAUT HGT
HGT HGT TACKQ PTUTG.
VKJQ JNT QKT GJFTP HI
QNRFOREEP YKAESNTG?

For only £3 — or nothing at all, if you had the foresight to collect the tokens in the first 4 Printouts of **Load Runner** ***— you can gain access to the wealth of special offers and prizes that I will announce in each Printout. Just complete the coupon below and together with 2 passport-size photographs send it to me:***
Load Runner Decoders, 196–200 Balls Pond Road, London N1 4AQ.

Your Security Pass and Cipher Book will be despatched immediately.

List below the story/programs and fact routines that you like best in Load Runner.

1 .....

2 .....

3 .....

What do you dislike most in Load Runner?

.....

Do you have a computer? YES/NO

Name ....Age .....

Address .....

.....

DATA FOR YOUR MEMORY BANKS!

In Printout No 9 I will be giving away a super free record with music by Mainframe and programs for the BBC, Spectrum and Dragon computers.

To make sure you don't miss out access your newsagent now and place an order for Printout No 9, on sale October 13. More details in Printout No 8, on sale September 29.

The Controller

FREE GIFT

Ace comic

YOUR COMIC IS GREAT. I give it 20 out of 10. I don't like comics much but I thought I'd give yours a try and I liked it so much I ordered it. I do not yet have a computer but I might be getting one for Christmas. My favourite stories are Load Runner, The Arcadians and Time Plan 9. Please could you print this letter in your ace comic because I've never had a letter in such a good magazine.

Michael Wilson, Hull, North Humberside.

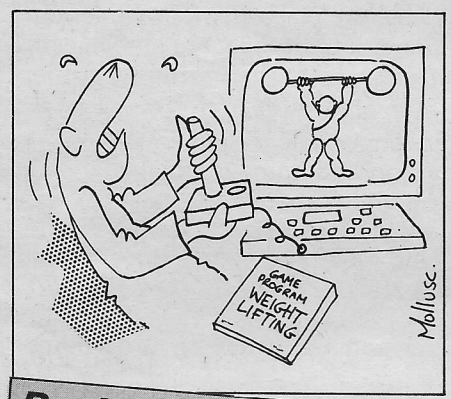
• Request granted, Michael. I hope that your Christmas requests are similarly fulfilled.

Bigger Brainbox?

I THINK that Brainy's advice on computers is not long enough. I think it should be on two pages as it could contain more information.

Owen Ogbanobi, 2000AD reader, London.

• My team of operators endeavour to maintain a balanced output in each printout and if Brainy expanded his Brainbox any further, some fact-routines would have to be deleted to accommodate it. That would result in error messages from other readers. To put it in Basic, Owen, you can't please all of the people all the time, particularly 2000AD readers!



Boring Trumbull

I'M WRITING about your story-program Trumbull's World; I'm finding it rather boring but perhaps it will get better. Better news is that I find Rom & Ram very amusing and the Load Runner strip very exciting, though confusing. The Arcadians is a weird and extraordinary story; it's almost supernatural, or as my dad would say, evil.

Sam Stockdale, Beeston, Notts.

• My programmers deny that there is any boredom output in Trumbull's World and respectfully suggest that perhaps there is an error in your running of this story-program. Correct this malfunction immediately by loading this printout's exciting instalment on page 33.

What does 'evil' mean? My operators claim that this does not compute. Perhaps your dad would like to provide further data for them to input. Anyway, at least he's reading it.

Show and tell

I WAS PLEASED to find a computer comic just for kids and it was nice to see some programs in it. When I go back to school I will tell them about the great stories and all about the Decoders and watch them turn green. I will try to persuade them to collect the comic and from what I have seen so far I shouldn't have much trouble.

Claire Stanley, Bromsgrove, Worcs.

Too much

THOUGH I think *Load Runner* is the most successful comic in the business, I must say the price is rather high. Fortunately nothing will stop me buying it and just to make sure, I am placing an order with the newsagent nearby.

Ewan Harrow, age 12, Sculthorpe, Norfolk.

• 40 pence is a small price to pay for excellence, Ewan, as you obviously realise. I hope that other readers follow your example.

What a Vic Joke!

HERE is a joke for you:
Tom: How's your Vic today?
John: You better beware, he's on the RAM page.

Tony Sandbach, Hoole, Chester

● ● ● ● ● ● ● ● ● ● ● ● ●

I will pay £3 for each letter or joke printed.

Write to: The Controller,
Load Runner,
196-200 Balls Pond Road,
London N1 4AQ

● ● ● ● ● ● ● ● ● ● ● ● ●

Potty programs

PLEASE keep Soft Spot and your programs as regular features; they make Load Runner more like a computer magazine and much cheaper, too.

Here are some Potty Programs and their inventors:

Space Invaders by Willy Killem
Graphics by Betty Won't
Pac-man by I M Hungry
Defender by P R O Tector
Scramble by Ivor Lasergun

Andrew Whiteside, age 13, Clitheroe, Lancashire.

• Load Runner is not a computer magazine; it is a computer comic **— the first in the galaxy, and don't you forget it. In any case, you need have no fear, Andrew, my operators assure me that Soft Spot is now a regular feature, as are the programs, provided that readers continue to send them in. Remember, I will pay £10 for each program printed.**

Sinclair bias?

I HAVE had all of your issues so far and I think the stories are just fab. However, there does seem to be a bit too much emphasis on software for the Sinclair machines and not enough for other computers. Anyway, congratulations on *Load Runner;* it is the best comic I have ever had.

Darren Evans, Tonbridge, Kent.

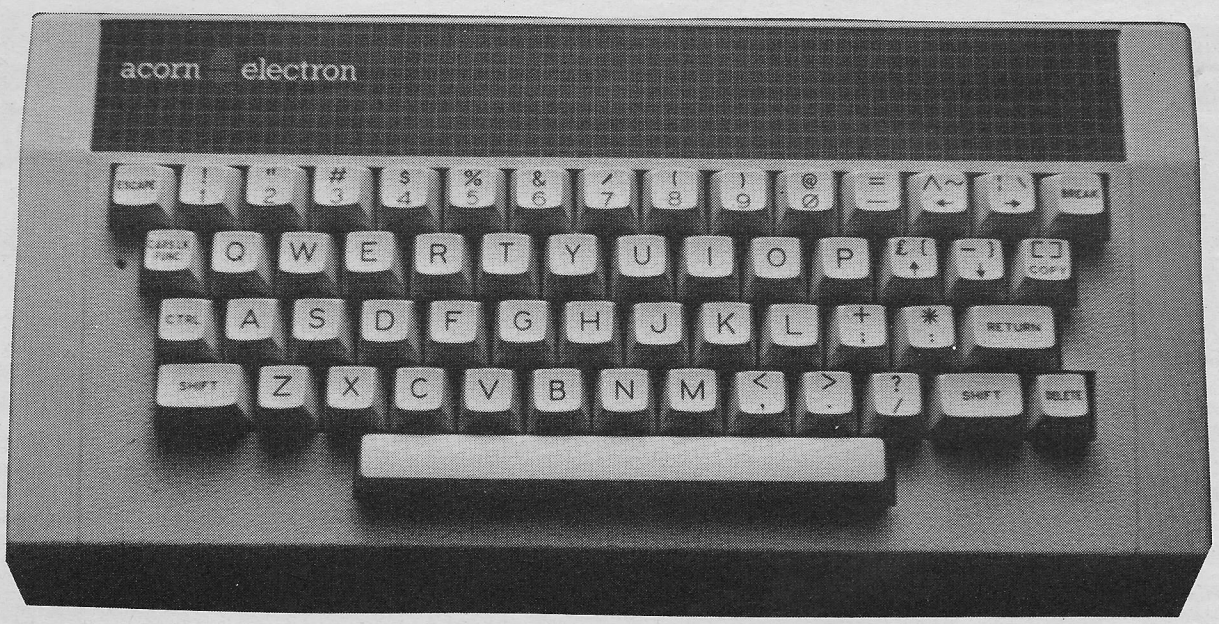
• The Soft Spot operators review software for at least four machines in every printout and of the 19 tapes reviewed so far, only five have been for Sinclair computers. Your input has been filed for future reference and I will endeavour to reflect accurately the needs of all my readers in forthcoming printouts.

Make a computer happy

```
EMERGENCY,LACK OF DATA,EMERGENCY
MEMORY BANKS UNABLE TO RECALL
ISSUE 1 OF LOAD RUNNER.
CLIVE THE SPECTRUM TO CONTROLLER
PLEASE SEND DATA-ISSUE 1 OF LR.
    CLIVE
     42 BROAD WALK
      WILMSLOW
       CHESHIRE
         SK9 5PL

IF ISSUE 1 UNOBTAINABLE THEN
ENTER SELF DESTRUCT COUNTDOWN.
TEN NINE EIGHT SEV

PLEASE STOP THE COUNTDOWN.
MAKE A COMPUTER HAPPY,SEND IT
ISSUE 1 OF LOAD RUNNER.

        THANK YOU
```

Clive Forrest, Wilmslow, Cheshire.

• Printout No 1 is winging its way to you, Clive. If any other readers require copies of Load Runner I have a limited quantity of all printouts except No 2 at my installation base. Please send a cheque or postal order for 55p to cover p&p for each **printout you require.**



WIN AN ELECTRON COMPUTER

The Computer

YET AGAIN I bring you up-to-date news from the world of computers—the launch of the Acorn Electron.

An all-purpose tool designed specifically for the home, the Electron can perform a number of roles, from self-teaching to games playing, from personal money management to garden planning. Eventually the Electron will become a gateway to a wealth of electronic information, tapping the resources of Ceefax, Oracle and other viewdata services.

The Electron is language-compatible with the BBC Micro, and offers many of the Model B's powerful features, but, at £199, retails for half the price. Software is already available, covering games, education and money management.

The Prizes

I AM OFFERING two Electrons as first prizes in my easy competition, with 20 prizes of Acornsoft tapes for the Electron for the runners-up.

Winners can choose their cassettes from the selection below.

CREATIVE GRAPHICS: produces a spectacular range of pictures and patterns.

GRAPHS AND CHARTS: presents data graphically for a wide range of applications.

TREE OF KNOWLEDGE: an interactive program for children of all ages teaching categorisation.

STARSHIP COMMAND: command your ship against the aliens in this hi-res game.

MONSTERS: trap and kill the beasts pursuing you along walls and down ladders.

CHESS: a hi-res game with 10 levels of play.

DRAUGHTS & REVERSI: traditional games faithfully reproduced on screen.

SNAPPER: guide the snapper through the maze, avoiding the creatures that chase you.

METEORS: manoeuvre your ship through the meteor storm, watch out for UFOs.

How to Enter

THE Electron is an ideal home computer for all the family. Below are ten activities which the Electron can perform in the home. Simply place them in what you consider to be the order of importance. For instance, if you think A is most important, then write A in the space provided.

A Teaching foreign languages
B Aiding exam revision and homework
C Financial planning and management
D Playing games and adventures
E Generating recipes
F Garden planning
G Programming tool
H Teaching literacy and numeracy to pre-school children
I Picture making
J A basis for word processing

Then send your entry to: Electron Competition, Load Runner, 196–200 Balls Pond Road, London N1 4AQ, to arrive not later than September 30. My decision is final and employees of ECC and Acorn Computers are ineligible.

1 ..... 6 .....
2 ..... 7 .....
3 ..... 8 .....
4 ..... 9 .....
5 ..... 10 .....
The cassette I would choose is .....
Name .....
Address .....
.....Age .....

SPECIFICATIONS

The Electron contains 32K ROM and 32K RAM. Only 3½K RAM is required by the Machine Operating System.

It features a 56-key QWERTY keyboard with 10 user-definable keys. All keys are software re-definable.

It gives high quality colour TV display and has a built in loud-speaker.

It will eventually be upgradeable via expansion units.

Andy Royd-the DOMINATORS' Rogue star!

DATELINE AUGUST 1993 - **DAVY'S DOMINATORS** HAVE TAKEN ON A NEW **PROGRAMMER** TO UPDATE THE SYSTEMS CONTROLLING THEIR TEAM OF FOOTBALLING **ROBOPLAYERS** - BUT SHE HAS DISCOVERED THEIR **SECRET!**

THERE'S ONLY **ONE WAY** YOU COULD HAVE BEATEN THAT PROGRAM, DAVY, YOU'RE NOT THE ONLY **HUMAN** PLAYING!

WHAT MAKES YOU THINK THAT?

DOES SHE **REALLY** KNOW?

THIS NEW PROGRAM COULD FORECAST **EVERY** MOVE YOU PLAYED - UNTIL YOUR **Nº 10** GOT THE BALL! OWN UP DAVY, HE'S NOT A **ROBOPLAYER** AT ALL, **IS HE?!**

ANDY HAS BEEN LISTENING...

WE'D BETTER COME CLEAN, DAVY. HER PROGRAM PLAYED ALL AROUND US UNTIL I MADE MY MOVE!

HE'S RIGHT! THE ONLY WAY WE CAN STOP **NEAVE MARSHALL ESTATES** CLOSING YOU DOWN IS TO WORK AS A **TEAM!**

OK, ISABEL, YOU WIN!

ANDY EXPLAINS HOW AFTER A CHILDHOOD ACCIDENT SURGEONS REBUILT HIS LIMBS GIVING HIM **SUPER-HUMAN STRENGTH.** DISQUALIFIED FROM COMPETING WITH HUMANS, THERE WAS ONLY ONE OPTION.

... SO, DISGUISED AS A ROBOPLAYER, ANDY ACTS AS A HUMAN **ADD-ON,** HIS HELMET THE **INTERFACE** THROUGH WHICH HE RECEIVES THE COMMANDS FROM MY **COMPUTER CONSOLE!**

THIS HAS NO **SPEAK-BACK FACILITY,** BUT I CAN SOON FIX THAT! IT'S FANTASTIC, THOUGH - A HUMAN TAKING ON COMPUTERISED ROBOPLAYERS - AND **WINNING!**

DO YOU THINK YOU CAN UPDATE YOUR PROGRAMS TO USE A **ROGUE PLAYER?**

I **KNOW** I CAN - AND WHEN I'VE FINISHED, **THE DOMS** WILL BE **UNBEATABLE!**

OVER THE NEXT FEW WEEKS THEY WORK FEVERISHLY, UNTIL...

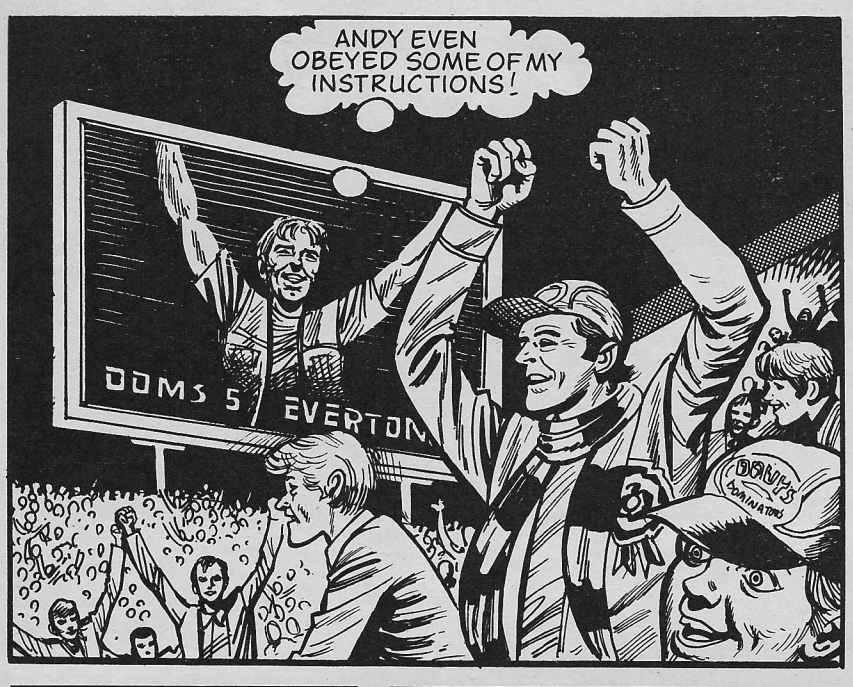
YOU'VE DONE IT, IZZY! THERE'S GOING TO BE **NO** STOPPING US NOW!

...THE FIRST MATCH OF THE SEASON!

OK, ANDY, THIS IS IT! WE'VE NOT HAD TIME TO RUN A FULL TEST PROGRAM, SO KEEP YOUR FINGERS CROSSED!

ELECTRIC ERIC'S OLD EVERTONIANS! THEY THRASHED US LAST SEASON - LET'S SEE IF WE CAN GIVE THEM A BIT OF THEIR OWN MEDICINE...

ANDY PLAYS A BLINDER!
AND ELECTRIC ERIC HAS NO ANSWER!
WELL DAVY, I GUESS THAT WRAPS IT UP FIVE-NIL!
SCRIPT- CHRIS WINCH
ART- JOHN STOKES
LETTERS- S. CRADDOCK


ANDY EVEN OBEYED SOME OF MY INSTRUCTIONS!
DOMS 5 EVERTON
DAVY'S DOMINATORS

THAT'S THE FIRST TIME I'VE PLAYED AND FELT AS IF THE REST OF THE TEAM WAS ON MY SIDE!
THAT'S BECAUSE I'VE PUT AN OVER-RIDE COMMAND IN THE PROGRAM.
IF THE COMPUTER THINKS THAT THE MOVE YOU'RE MAKING IS BETTER THAN ITS OWN, IT WILL FOLLOW YOUR LEAD, BUT IT STILL HAS A FEW BUGS.

NEXT EVENING, WHEN THE REST OF THE STAFF HAVE GONE HOME...
OFF YOU GO, ANDY, YOU'RE ON-LINE!

GREAT, JUST WHERE I WANTED IT!

AND I DON'T HAVE TO GO IT ALONE ANY MORE - THERE'S ALWAYS A ROBO IN SPACE!

WE'VE JUST UPDATED THIS PROGRAM, AND IT'S ALMOST UNBEATABLE! WITH YOU AND ANDY AS WELL, NO ONE WILL HAVE A CHANCE!
CALL FOR YOU, DAVY, IT'S THAT MR MARSHALL!

HELLO, LITTLE MAN! JUST RINGING TO CONGRATULATE YOU ON YOUR VICTORY!
...AND TO TELL YOU THAT IF YOU THINK A BACK-BYTER WITH AN UPGRADED POCKET CALCULATOR CAN SAVE YOU FROM BECOMING BITS OF FOOTBALLING MEMORY - YOU CAN'T POSSIBLY KNOW HOW DIRTY I CAN PLAY!
JUST ASK MISS D'ARTH! YOU'VE A SURPRISE COMING!
WHAT HAS MARSHALL GOT IN STORE FOR THE DOMINATORS NOW?! SEE NEXT PRINTOUT!

Come and play with tomorrow.
THE GREAT HOME ENTERTAINMENT SPECTACULAR
OLYMPIA
SEPT 17 to SEPT 25
Turn on and tune in to what's happening tomorrow. There's everything from live entertainments, video, theatres, TV and radio, studios, hi-fi, computers, games, satellite TV, electronic keyboards to the latest in laser discs.
THE TIME: 11.30am – 9.00pm (Monday Sept. 19th 5.00pm – 9.00pm). THE PRICE: £3.00 per adult. £2.00 per child (under 12). Take this advertisement to the Great Home Entertainment Spectacular and you will receive a £1.00 discount on your entry ticket. Not exchangeable for cash.

Great Things

HALLS OF THE THINGS is an excellent graphics maze adventure for the 48K Spectrum.

You play the hero who must gain access to a multi-level maze by using a stairway which runs up its eastern side. You have to collect the rings of power and also kill as many monsters as you can along the way.

Killing monsters is thirsty work and it will sap your magical strength. As a result, your power level will decrease when you are hit by a Thing and if it goes below zero you will die. You must drink the milk in the bottles strewn around the maze in order to prevent that.

Apart from being the fastest Spectrum arcade-quality adventure around, Halls of the Things has several other novel features. The maze scrolls in all directions, depending on which way you are moving, and you can get a close-up view of your part of the maze by pressing the 'space' key.

You have several weapons at your disposal and these include a sword, lightning and fireballs. All are shown in graphic detail on the screen.

There is little that can be said against this adventure and it is possibly the best piece of software to be produced for the 48K Spectrum this year.

It is available from Crystal Computing and costs £7.50.
Fun, 7; addictive, 9; graphics, 10.

Useful routines for the Oric

THE ORIC-1 EXTENSION MONITOR is one of the few machine code utility programs around for the 48K version of the machine.

The package does not do much to extend the computer's capabilities, but it does provide some useful routines which allow the translation of machine code numbers, written in hexadecimal, to 6502 assembly language. That means that such instructions as AFBF, which is quite indecipherable without some knowledge of the codes, can be translated into semi-English statements, such as LDA, 12, which are easier to understand.

One obvious use of the package is that it can disassemble machine code routines in the Oric's memory so that the user can debug them, taking any errors out of the code. The commands within the Monitor will allow the user to search for specific strings within the memory and to alter locations where errors occur.

One major advantage of the Extension Monitor is that the user can run the machine code program which he has written using the Monitor from within the Monitor.

The Extension Monitor is disappointing because it lacks user-friendliness and power. It costs £15 and can be obtained from Kenema Associates Ltd.

The flight of the Dragon

MICROCOMPUTERS, such as the Dragon 32, lend themselves perfectly to flight simulation programs. Hewson Consultants has taken advantage of this with its Dragonfly simulator, which puts the player in the cockpit of a light aircraft.

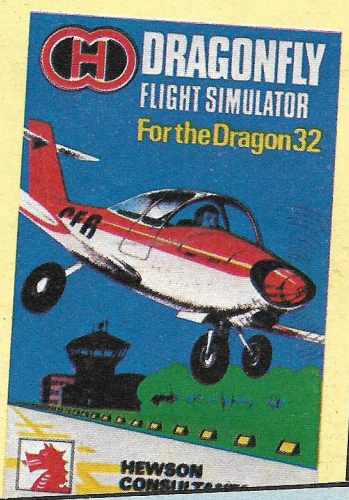
The simulation allows the pilot to do most things that a real pilot can do. It is possible to provide aerobatic displays, although that is highly dangerous for the beginner.

Your aircraft will take off from Norwich airport. From there you can fly around for a short time, until you come down to land or your fuel runs out. The worst part of the trip is landing and this can prove impossible.

The simulation may sound easy, but the author has provided a joystick option to add more realism to the program and to make the aircraft easier to control for the beginner. The display panel on the computer screen, including a cockpit view from the aircraft, is confusing but the less-than-ample instructions will give some idea of how everything works.

If you would like enacting the closing scenes from the film Airport then this program is for you. It can be obtained from Hewson Consultants and costs £6.95.

Fun, 6; addictive, 7; graphics, 8.



Double top!

IF YOU FANCY yourself as the next Eric Bristow, 180 from A & F Software is the way to learn darts without putting too many holes in the bedroom wallpaper. Priced at £6.95 and running on a BBC model B, 180 is a two player game with the computer showing the play, enforcing the rules, and keeping track of the scores.

Three types of game are available; Normal—where you start with a fixed number and reduce your score to zero, finishing on a double (the start may be 101, 201, up to 901); Round the Clock—where each player has to hit the numbers in sequence, the winner being the first one to hit a bull; and Shanghai—where each player throws at the numbers in sequence and the scores for each number are added to find the winner. You can choose a difficulty level for the games between 1—difficult—and 10—impossible!

A well-thought-out game with good graphics, it is spoilt only by very sketchy instructions.

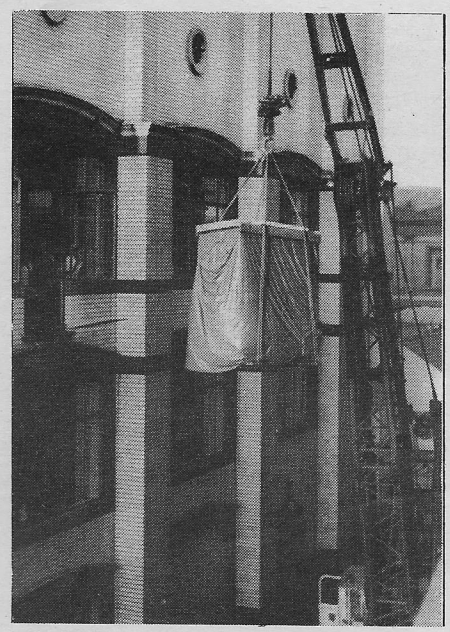
Fun 5; addiction 4; graphics 7.

Difficult delivery

COMPUTERS have not always been as small as today's micros, and installing them was often a major operation.

The photograph below depicts the delivery in 1959 by crane of a Powers-Samas PCC (Program Controlled Computer) to the Alliance Insurance Company in Chiswick. The PCC received input in the form of punched cards, and was used to calculate dividend warrents, as well as performing other operations. It was in service for about four years.

(Photograph courtesy of Sun Alliance Insurance Group)



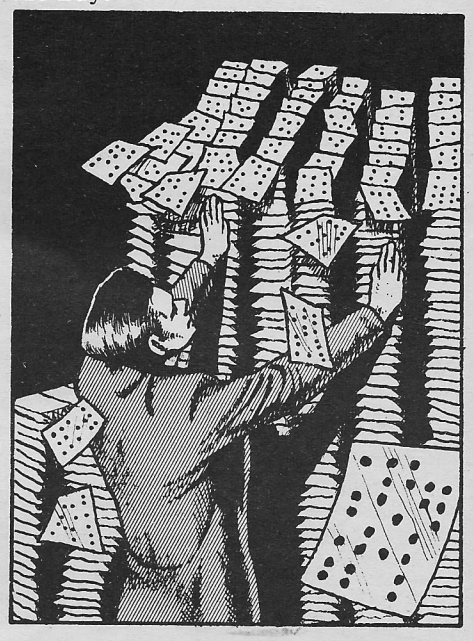
Doctors to do little?

COMPUTERS are rapidly becoming commonplace in hospitals, but not everybody is overjoyed with the new technology.

In the hypertension unit at one hospital a micro was installed to analyse tests, make diagnoses and suggest treatment. The patients could operate the system directly through a VDU in the clinic, and a nurse took its orders. One junior doctor, worried that he was becoming redundant, fought a losing battle with the computer, feeding it false data about fictitious patients as a protest, until he was eventually dismissed.

Putting out the output

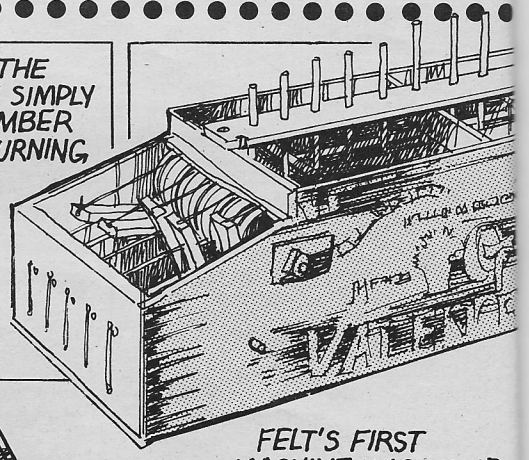
WHATEVER HAPPENS inside computers, they are very good at producing output as paper or punched cards. Three Cambridge visitors to ENIAC in succesive years noted that the corridors to the computer room had got narrower each year, as more and more punched cards were stacked up along them. ENIAC was sited at the Aberdeen proving ground near Philadelphia and next to Chesapeake Bay. Speculation was rife as to where the cards finally disappeared, and it was suggested that someone with a bulldozer must be pushing the old cards into the Bay.



The Computer Story

A HISTORY OF COMPUTERS PART SEVEN

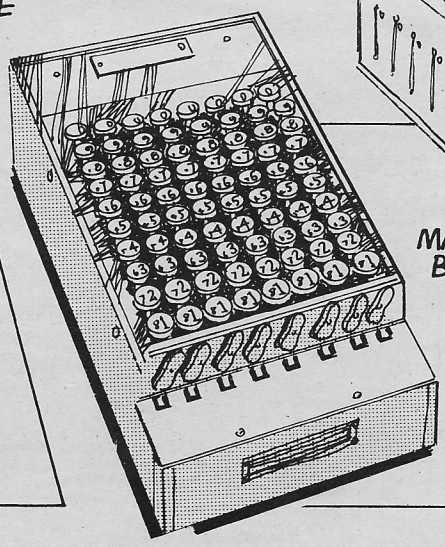
IN 1884 DORR FELT OF CHICAGO INVENTED THE "COMPTOMETER". CALCULATION WAS DONE SIMPLY BY PRESSING KEYS WHICH WORKED NUMBER WHEELS. NO SETTING OF LEVERS, OR TURNING OF HANDLES WAS REQUIRED, AND IN THE HANDS OF A TRAINED OPERATOR ASTONISHING SPEEDS COULD BE ACHIEVED.



MECHANICAL CALCULATORS OF THE KIND ALREADY DESCRIBED (PART THREE) WERE TOO SLOW FOR COMMERCIAL WORK, WHERE A BOOK-KEEPER COULD ADD-UP FOUR COLUMNS OF FIGURES IN HIS HEAD!

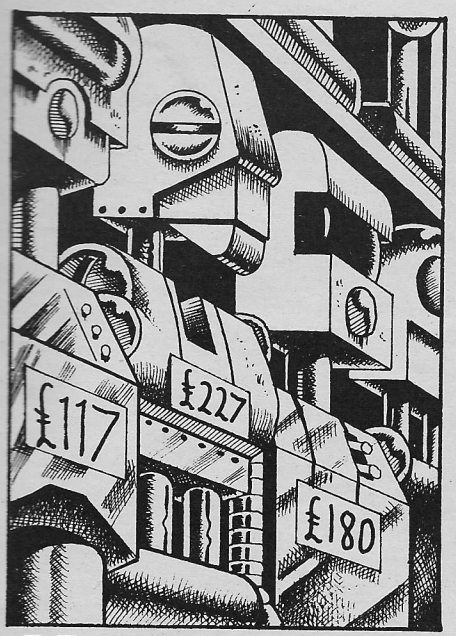
THE FIRST SOLUTIONS TO THIS PROBLEM WERE SOLD IN AMERICA IN THE 1890s. THEIR INTRODUCTION MARKED THE LAUNCH OF THE HUGELY SUCCESSFUL BUSINESS MACHINE INDUSTRY...

THE "MECHANISED" OFFICE



FELT'S FIRST MACHINE WAS HOME-MADE USING A WOODEN MACARONI BOX, MEAT SKEWERS FOR THE KEYS, AND RUBBER BANDS FOR SPRINGS. HE PERSUADED HIS EMPLOYER TO SPONSOR HIS INVENTION, AND "FELT AND TARRANT" SOLD VAST NUMBERS TO GOVERNMENT AGENCIES AND BIG BUSINESSES.

Written and drawn by Chris Smither.



Marketing metal men

IN THE SEIBU Department store in Tokyo the latest thing is an off-the-shelf robot. In a newly opened 'robot corner' customers can take their pick from a wide range of locally made machines. Specially-trained assistants are available to assist would-be purchasers. However, the cheapest model costs about £16,000 — more than eight times the cost of an Apple or a hundred times more expensive than a Spectrum. No indications yet have been received on the volume of sales but it is unlikely that British micro stores will follow the Japanese lead in the near future.

Buzzwords are the jargon of the computer world and can be very confusing. Below, *Load Runner* continues its glossary of computing terms. Get buzzing.

Dump. To put all the contents of memory (RAM) on to backing storage such as disc so that it will not be lost when the power is switched off.

Edit. To change data which has been stored in a machine. It can apply also to changing a computer program within the machine in order to correct errors which occured when it was entered.

Electronic office. An office where most of the tasks, such as accounting, letter-writing and preparation, and even letter mailing have been automated.

End-user. The person who will recieve the information which has been processed by the computer. This could be the person at the computer terminal who has been typing in the instructions or it could be a businessman who has ordered a report to be prepared by the computer.

Enquiry. An instruction which is given to the computer by a user in order to gain access to data stored within the machine. For instance, if the user wanted to find a certain name and address on a disc which has been inserted into the computer an enquiry would be made about the information.

EOF (End of File). That instruction tells the computer that it has reached the end of the data which it is reading or scanning. When it reaches that instruction it will stop the reading process and regard the data as complete.

EPROM (Erasable Programmable Read Only Memory). Unlike RAM, this can be programmed to store information permanently even though the power may have been switched off. The EPROM chip can also be wiped clean of its present information and re-programmed with new information.

Error message. A message which the computer will give to a programmer if it has encountered a problem or error in a program.

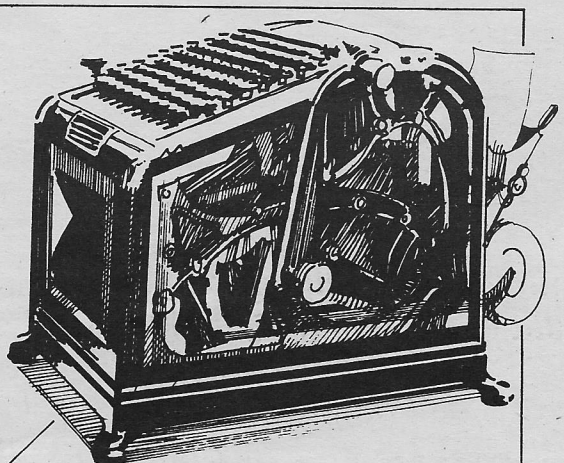
Exit. To leave the execution of a program even though it may not have finished. The computer will break away from the program and inform the user that it has done so with an error message.

Extender board. A piece of circuit board which will allow the user to add bits of equipment, such as more memory or an EPROM to the basic computer.

External storage. That includes disc drives, cassette decks and floppy-disc drives.

THE "COMPTOMETER" MIGHT HAVE SWEPT THE BOARD, BUT A RIVAL NAMED WILLIAM BURROUGHS DEVISED A SUCCESSFUL PRINTING UNIT TO RECORD NUMBERS AND TOTALS. BURROUGHS HAD FOUND THE DRUDGERY OF BOOK-KEEPING SO CRUEL AND DAMAGING TO HIS HEALTH THAT HE LEFT THE BANK HE WORKED AT AND BECAME A MECHANIC.

THE FIRST 50 MACHINES MADE IN 1892 PROVED UNRELIABLE. BURROUGHS GOT THEM ALL BACK, AND IN A FIT OF ANGER THREW THEM ONE BY ONE THROUGH A SECOND-STOREY WINDOW! HE WORKED FOR THREE DAYS AND NIGHTS TO CORRECT THE FAULTS, AND CREATED A WORLD-BEATING MACHINE.



THE "COMPTOMETER" AND THE BURROUGHS "ADDER-LISTER" BECAME THE WORLD'S MOST POPULAR ACCOUNTING MACHINES. THE LATER USE OF ELECTRIC POWER TO DRIVE THE CALCULATORS OPENED UP THE MARKET EVEN FURTHER, AND BOTH MEN BECAME MILLIONAIRES AND LAUNCHED HUGE BUSINESS ORGANISATIONS. TODAY BURROUGHS IS ONE OF THE BIGGEST WORLD-WIDE COMPUTER FIRMS.

02

SPY IN THE SKY

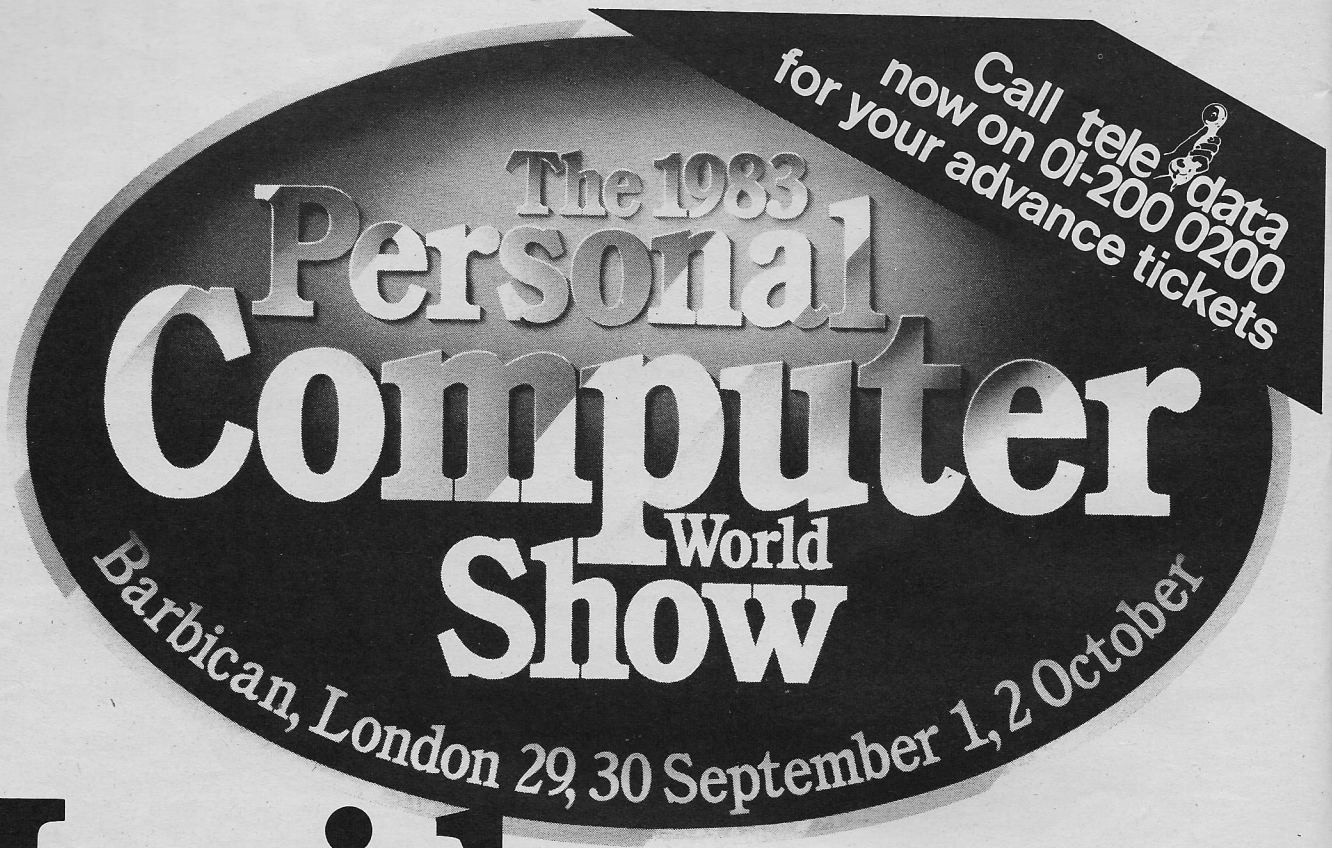
SCREAMING OUT of your local cinema screen soon, at 200mph, comes *Blue Thunder*, the awesome computer 'copter star of the latest release by John Badham, the director of *WarGames*.

Blue Thunder is the ultimate law enforcer — a super-surveillance helicopter with incredible firepower, capable of controlling and devastating whole cities. The 20mm cannon can deliver 4,000 rounds a minute, and is co-ordinated with the pilot's helmet — the mere twist of his head and the push of a button sights and fires the deadly weapon. The helicopter carries a 30,000,000 candlepower night lamp which can pinpoint an insect on the ground, and inch-thick armour plating to protect its occupants.

Even more incredible is the computer technology incorporated in Blue Thunder. Its electronic eyes and ears can spy on everything that happens in the city below, seeing and hearing through buildings and walls, recording it all on audio-video tape. It has access to computer data banks throughout the country, which can provide instant printouts on any suspect's background and 'political reliability'.

Blue Thunder is a terrifying creation — and, what is more frightening, it isn't a creature of fantasy; the technology to accomplish all this is already in use on military helicopters. In the wrong hands — or even in the right hands — Blue Thunder could be a dangerous and invincible tool. And in the film, the helicopter pilot, played by Roy Scheider, gradually comes to realise that Blue Thunder is already in the hands of an extreme right-wing government group. This knowledge is enough to necessitate his elimination.

Blue Thunder is both action-packed and thought-provoking. Also starring Warren Oates, Malcolm McDowell and Candy Clark, the film is currently showing in London, and will be hitting the provinces in the near future. With both this and *WarGames* under his belt, it looks like John Badham is well on his way to becoming the Alfred Hitchcock of the computer thriller!



Inside: Information

The wonderful world of the PCW Show opens up again on 29th and 30th September and 1st and 2nd October.

And, like every previous Show, it's the one and only place for the newest, biggest, smallest, costliest, cheapest, finest, micro hardware, software, bolt-ons and books.

Where the big news breaks first.
At the Personal Computer World Show you'll see the launch of some astonishing new kit, fascinating software and vital peripherals.

And you can discover it all at first hand, scooping all the magazines.

Know the world of personal computers.
Just about every micro manufacturer, software vendor, and goodie supplier will be at the PCW Show.

There'll be special deals on offer, too, as well as the chance to enter the Computer Scrabble ® competition, and watch the 4th European Computer Chess championship.

Plus the MicroComputing Centre, Computer Town, Computer Clubs, and more.

The time and the place for everything.
Make sure you visit the PCW Show. It's on from Thursday September 29th until Sunday October 2nd, at the Barbican Exhibition Centre in London.

It'll be fully signposted, and is easy to reach by tube, bus or car.

Make sure you don't miss out.

The PCW Show: £3.00 – but to you £2.50.
Clip and keep this voucher to save 50p when you buy a PCW Show ticket on the day.

PCW SHOW 50p DISCOUNT VOUCHER

This voucher entitles the bearer to 50p (fifty pence) discount on the full £3.00 entrance fee to the Personal Computer World Show.
The organisers reserve the right to admission.
Only one voucher per person/entrance. LR10

Or to really save, organise ten or more friends and order our £1.25 Group Tickets in advance – nearly 60% discount!

Just complete and send the coupon today.

PCW SHOW GROUP TICKET ORDER

I have managed to persuade, cajole or press gang _____ (10 or more!) of my friends to attend the PCW Show, so please send me the same number of tickets at the very special rate of £1.25 each inc.

☐ I enclose a cheque for _____ made payable to PCW Show

☐ Charge my Access/ Barclaycard No._____

Signed_____

Name_____

Address_____

_____

_____

PCW Show Tickets, 11 Manchester Square, London W1M 5AB.

Please note: This offer is only for 10 or more tickets per order. LR10

THE INVASION OF THE ARCADIANS

D AND HIS GANG HAVE DISCOVERED THE DISTRIBUTION DEPOT FOR THE DAZERS' HEADSETS, AND D HAS HYPNOTISED THE STOREMEN INTO LEAVING. IN THE DARKNESS OF THE WAREHOUSE THEY LIE IN WAIT, UNTIL EVENTUALLY...

SCRIPT: LES COOKMAN
ART: JOHN STOKES
LETTERS: STEVE POTTER

...HIS ROBOT-LIKE WALK AND UNWAVERING STARE MAKING HIM AN EASY QUARRY.

MEANWHILE BACK IN THE WAREHOUSE...

OI! WHAT ARE WE 'ANGING AROUND 'ERE FOR? I WANT TO *DO* SOMETHIN'.

WE'RE WAITING TO SEE WHAT INSTRUCTIONS THIS ONE RECEIVES. WHEN THE OTHER ONE GETS BACK TO BASE, HIS CONTROLLERS WILL TELL HIM WHAT TO DO, AND WE HAVE TO BE HERE TO FIND OUT WHAT IT IS!

ACROSS TOWN, THE CHASE IS DRAWING TO A CLOSE...

WHAT THE..! LOOK AT *THAT!* HAVE YOU *EVER* SEEN ANYTHING LIKE IT?

Arcadian Empire

WELL, NOW WHAT DO WE DO? GO BACK AND REPORT LIKE HE SAID?

I DON'T RECKON MUCH TO THAT. WE'RE ON THE SPOT—I THINK WE OUGHT TO GO IN AFTER HIM, IF ONLY...

THAT'S IT! THE HEADSETS I "BORROWED"!
DON'T LOOK SO FLIPPIN' WORRIED. JUST TRY AND LOOK GORMLESS LIKE YOU USUALLY DO, AND FOLLOW ME.
I HOPE THIS'LL BLOOMIN' WELL WORK!
WOW!

mind WARP
WARP
WARP
CONTINUED NEXT ISSUE

Play in the big league — with only the best, newest programs!

We've searched for brilliant new program sources throughout the U.K. and North America to find an exciting collection of new games — and business programs — many of which cannot be bought by mail order from any other source!

Every month, we'll be adding to our catalogue to bring you the best of new games, new business, educational and household software. And the good news is — **we're specialising in programs for your Sinclair!**

With our special new deal — you just CAN'T GO WRONG.

* A free offer every month (this time it's a free blank C20 cassette with every two games ordered)
* A money-back guarantee if you're not entirely satisfied with your purchase — that's how confident we are about the quality and value!

All you have to do is look at our first HOT selection, then order quickly to be among the first to own these games of skill, intelligence and excitement (fast delivery is another of our specialities — so you could be using these new programs SOON).

FREE BLANK C20 COMPUTER CASSETTE WITH EVERY TWO CASSETTES YOU ORDER!

Remember there's no limit to the number of free cassettes you receive if your order justifies them — so why not get together with friends or user group members and share the freebies?

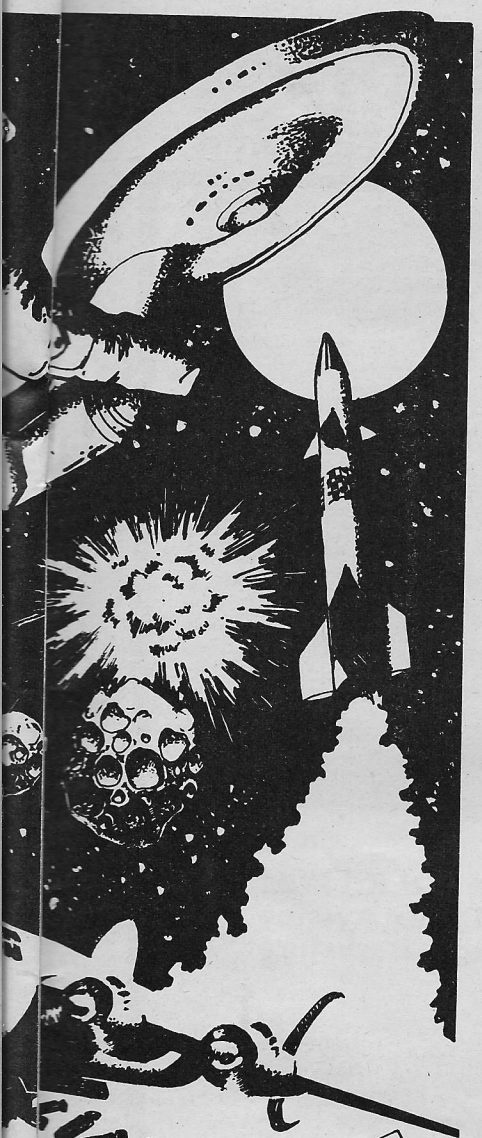
GUARANTEE

Order with complete confidence. If you are not entirely satisfied with the quality of your purchase return it to us within 7 days and we will provide a replacement.

GREAT VALUE! TREMENDOUS SELECTION! PLUS A FREE OFFER EVERY TIME!

Fill in the order form right away — we're guaranteeing fast delivery, quality and satisfaction (after all, we want you to come back for more!)

The Software Workshop, Yew Tree, Selborne, Hants GU34 3JP



Here's a whole NEW selection of the latest games, the best-value software for your ZX-81 or Spectrum.

ZX81 Software

1-01 Stock Market — £3.95
Buy and sell your way to millions! 16K RAM

1-02 Football League — £3.95
First division fun for the soccer enthusiast. 16K RAM

1-03 Test Match — £3.95
Match your wits alongside the superstars. 16K RAM

1-12 Avenger — £4.95
Avoid missiles and bombs to become the ruler. 16K RAM

1-13 Protector — £4.95
Defend your own ship from oncoming attackers. 16K RAM

1-31 Comp-U-Share — £9.95
Investment management program for unit trusts, shares and loan stocks. Complete documentation included. 16K RAM

1-32 Comp-U-Tax — £9.95
Accurate personal income tax calculator for 82/83 tax year. Full documentation included. 16K RAM

Spectrum Software

2-12 Avenger — £4.95
[See 1-12 under ZX81]. 48K RAM

2-13 Sentinel — £4.95
Guard your mother ship against alien attacks. 48K RAM

2-14 Meteor Storm — £4.95
Spectrum version of the ever-popular arcade game. 16K or 48K RAM

2-15 Star Trek — £4.95
Popular space program brought to life by excellent graphics. 48K RAM

2-21 Frogger — £5.95
Manoeuvre the frog across the road avoiding heavy traffic. 48K RAM

2-22 Crazy Balloons — £5.95
Guide the balloons round the maze without bursting. 48K RAM

2-23 Arcadia — £5.95
The expert's version of the popular 'Invaders' game. 16K or 48K RAM

2-24 Golf — £5.95
The finest of golf handicap games. 48K RAM

2-25 Test Match — £5.95
More exciting than the real thing! 48K RAM

2-26 Derby Day — £5.95
This favourite has to be a winner. 48K RAM

2-27 Rescue — £5.95
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2-41 Comp-U-Share — £9.95
See 1-31 under ZX81. 48K RAM

2-42 Comp-U-Tax — £9.95
See 1-32 under ZX81. 48K RAM

To: The Software Workshop, Yew Tree, Selborne, Hants GU34 3JP

I wish to order the following programs. I understand that:

* I will receive a FREE blank cassette with every 2 programs ordered
* I can return products within seven days if not entirely satisfied and receive a replacement.

Ref No	Qty	Title	Price

Postage, packing and handling: add 45p for the first cassette, and 25p for each additional cassette. Non-UK orders add extra 50%

Total

I enclose a cheque/postal order for _____

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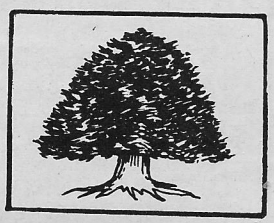
(Allow 28 days MAXIMUM FOR DELIVERY)



Commodore Vic 20

Commodore (U.K.) Ltd.,
675 Ajax Avenue
Slough, Berkshire

Specifications

Price		£129.99
Numbers sold		600,000
How sold		Assembled
Processor		6502
Standard RAM		5K
Expansion RAM		3K, 8K, 16K
Basic + operating system		8K
Display	Colour	23 lines × 22 characters
Tape recorder		manufacturer's
Backing storage	Optional	Disc drives

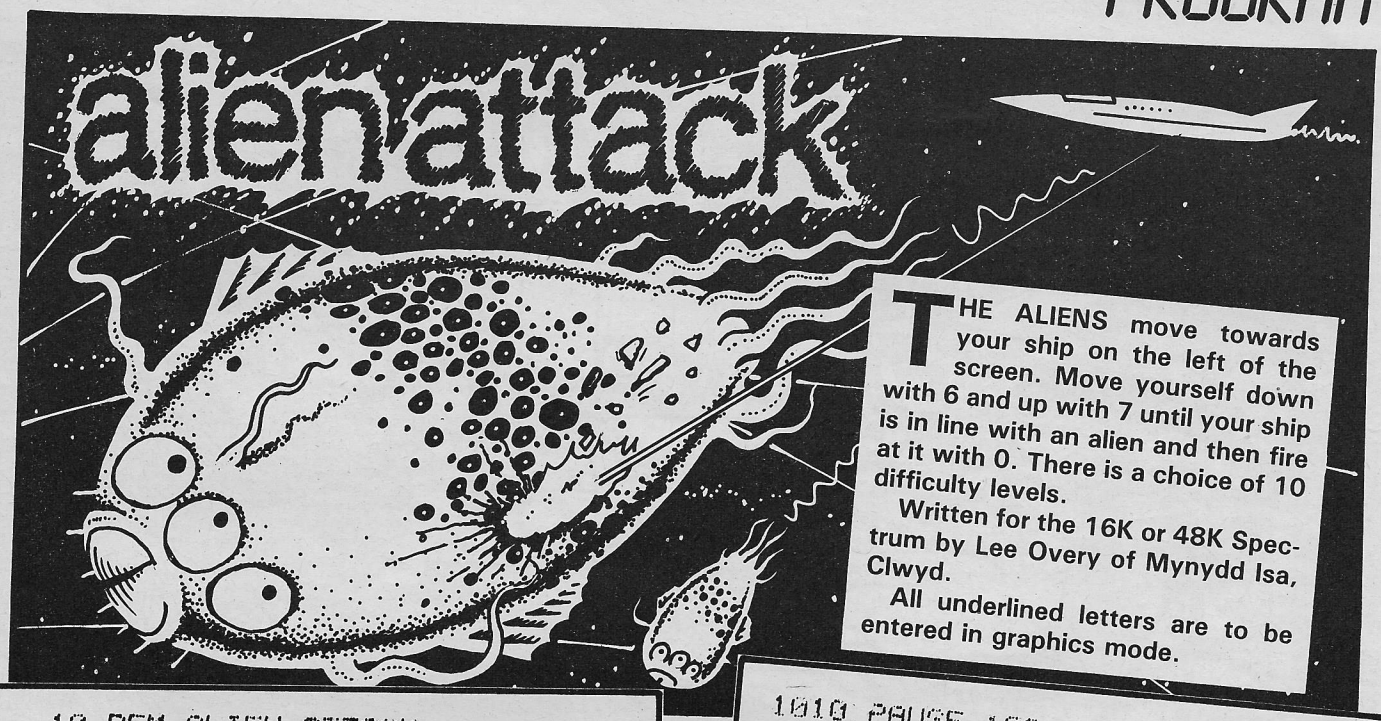
Software
Computer branches of Boots, Rumbelows, Dixons and Currys.
Imagine Software, Masons Buildings, Exchange Street East, Liverpool, Merseyside.
Interceptor Micros, Lindon House, The Green, Tadley, Hampshire.

Comments
The machine is now sold in a boxed set which includes Commodore's Data Cassette and a free introductory course in Basic. It is still one of the most popular microcomputers in Britain and the USA but has been superseded by the Commodore 64 which is £100 more expensive. Software and hardware for the Vic is widely available in most computer shops.

Program
This program is an aid to printing character strings at different positions on the screen by entering the x,y co-ordinates.

```
1 REM
2 REM THIS PROGRAM WILL PRINT THE
3 REM DIMENSIONAL ARRAY ANYWERE ON
4 REM THE SCREEN.
5 REM GIVEN THE X AND Y COORDINATES
6 REM
7 REM INPUT DIMENSION SIZE OF CHARACTER
9 PRINT"□"
10 INPUT A,B
20 DIM Z(A,B)
30 REM ENTER DATA INTO DIMENSION
40 FOR C=1 TO A
50 FOR D=1 TO B
60 INPUT E:Z(C,D)=E
70 NEXT D:NEXT C
75 PRINT"□"
80 REM ENTER CO-ORDINATE FOR CHARACTER
85 REM TO BE PRINTED
90 INPUT X,Y
100 FOR C=1 TO A
110 FOR D=1 TO B
120 Q=38400+X+22*Y
130 POKE Q,3
140 F=7680+X*22*Y
150 POKE F,Z(C,D)
160 X=X+1
170 NEXT D
180 Y=Y+1:X=X+3
190 NEXT C
```

alien attack



THE ALIENS move towards your ship on the left of the screen. Move yourself down with 6 and up with 7 until your ship is in line with an alien and then fire at it with 0. There is a choice of 10 difficulty levels.

Written for the 16K or 48K Spectrum by Lee Overy of Mynydd Isa, Clwyd.

All underlined letters are to be entered in graphics mode.

```
  10 REM ALIEN ATTACK
  20 GO SUB 9000
  30 BORDER 1: PAPER 0: INK 7: C
LS
  40 GO SUB 8000
  45 CLS : INPUT "Difficulty? (1
-10) ";P: IF P<1 OR P>10 THEN GO
 TO 45
  50 LET l=3: LET sc=0: LET z=20
+P: LET sc=0: LET x=19: LET y=1:
 LET b=30: LET a=INT (RND*17)+2
  54 FOR n=0 TO 50
  55 PLOT OVER 1: BRIGHT INT (RN
D*2): INK INT (RND*7)+1: INT (RND
*250)+1,INT (RND*173)+1
  56 NEXT n
  60 FOR b=z TO 3 STEP -1
  65 PRINT AT x,y; INK 6;"ABC"
  70 PRINT AT a,b; INK 7;"D ": B
EEP .01,-20
  80 PRINT AT x,y-1; INK 2;"E"
  90 LET x=x+(INKEY$="6")-(INKEY
$="7")+(x<2)-(x>19): PRINT AT x+
1,y-1;"   ";AT x-1,y-1;"   "
 130 IF INKEY$="0" AND a=x THEN
GO TO 500
 140 PRINT AT 1,0;"    ";AT 20,0
;"    "
 150 IF b=3 THEN LET l=l-1: BEEP
 .5,-40: PRINT AT a,b-1;"   ": I
F l=0 THEN GO TO 1000
 160 NEXT b
 200 GO TO 60
 500 REM ALIEN SHOT
 510 PRINT AT x,y+3; INK RND*7+1
;"FFFFFFFFFFFFFFFFFFFFFFFFFFFFF":
PAUSE 5: LET a=INT (RND*17)+2: P
RINT AT x,y+3;"
                "
 520 LET z=z-1: LET sc=sc+10: GO
 TO 60
1000 REM END OF GAME
```

```
1010 PAUSE 100: FOR f=1 TO 2: LE
T c$="01235678987655543224322432
2111"
1020 FOR n=1 TO 30: BEEP .05,VAL
 c$(n): NEXT n: NEXT f
1030 PRINT AT 1,0; FLASH 1;" SCO
RE:";sc: INPUT "Another Go? (y/n
) ";a$: IF a$="y" THEN GO TO 45
1040 STOP
8000 REM INSTRUCTIONS
8010 PRINT INK 6;AT 0,9;"ALIEN A
TTACK"
8020 PRINT : PRINT " As Pilot of
 the 'USS RESCUE'   sPace-craft
your job is to shootall the Alie
ns coming at you   from deep sp
ace."
8030 PRINT : PRINT " You can onl
y fire when your   craft is in
direct line with theAlien."
8040 PRINT : PRINT INK 6;" Keys
- '6'- Down";TAB 8;"'7'- UP";TAB
 8;"'0'- Fire Laser"
8050 PRINT : PRINT " Beware!-The
 Aliens get nearer  to you as yo
u progress."
8080 PRINT FLASH 1; INK INT (RND
*7)+1;AT 21,1;"PRESS A KEY"
8090 PAUSE 5: IF INKEY$="" THEN
GO TO 8080
8500 RETURN
9000 REM GRAPHICS
9010 FOR f=144 TO 149
9020 FOR n=0 TO 7: READ a: POKE
USR CHR$ f+n,a: NEXT n: NEXT f
9030 DATA 224,240,240,255,240,24
3,255,0,0,0,0,255,51,51,255,0,0,
0,0,0,128,224,255,0,0,62,120,254
,254,120,62,0,0,0,31,59,125,63,0
,0,0,0,0,0,0,0,255,0
9100 RETURN
```

```
 30 RANDOMIZE
 40 CALL CLEAR
 50 CALL SCREEN(2)
 60 FOR A=1 TO 8
 70 CALL COLOR(A,4,1)
 80 NEXT A
 90 CALL COLOR(10,1,1)
100 CALL COLOR(9,1,1)
110 PRINT  "*****NUCLEAR---DEADLINE*****"
120 PRINT
130 PRINT
140 PRINT
150 PRINT "*******BY--M.R.PETERS*******"
160 FOR A=1 TO 10
170 PRINT
180 NEXT A
190 CALL SOUND(100,110,0,220,0,330,0)
200 CALL SOUND(100,440,0,550,0,660,0)
210 CALL SOUND(100,800,0,880,0,950,0)
220 CALL SOUND(400,1000,0,1100,0,1200,0)
230 FOR A=1 TO 600
240 NEXT A
250 CALL CLEAR
260 CALL CHAR(96, "FFFFFFFFFFFFFFFF")
270 CALL CHAR(120, "1899FF3C3C3C2466")
280 CALL CHAR(104, "1899FF3C3C3C2466")
290 CALL CHAR(112, "0408183C7E7E3C18")
300 TIME=300
310 GOSUB 330
320 GOTO 510
330 FOR A=1 TO 21 STEP 4
340 CALL HCHAR(A,2,96,28)
350 NEXT A
360 FOR A=2 TO 30 STEP 4
370 CALL VCHAR(1,A,96,21)
380 NEXT A
390 FOR A=6 TO 26 STEP 4
400 FOR B=3 TO 19 STEP 4
410 CALL HCHAR(B,A,32)
420 NEXT B
430 NEXT A
440 FOR A=4 TO 28 STEP 4
450 FOR B=5 TO 17 STEP 4
460 CALL HCHAR(B,A,32)
470 NEXT B
480 NEXT A
490 CALL COLOR(12,10,1)
500 RETURN
510 VBOMB=((INT(RND*5)+1)*4
520 HBOMB=(INT(RND*7)+1)*4
530 VERT=3
540 HORI=4
```

```
550 CALL COLOR(9,16,1)
560 CALL COLOR(10,11,1)
570 CALL HCHAR(VERT,HORI,104)
580 TIME=TIME-10
590 GOSUB 1060
600 IF TIME=0 THEN 1860
610 for A=1 TO 4
620 CALL SOUND(10,110,0)
630 FOR X=1 TO DELAY
640 NEXT X
650 NEXT A
660 CALL KEY(0,C,D)
670 VMINE=((INT(RND*5)+1)*4)-1
680 HMINE=(INT(RND*7)+1)*4
690 CALL HCHAR(VMINE,HMINE,120)
700 CALL SOUND(-10,220,10)
710 IF VMINE=VERT THEN 1980
720 FOR A=1 TO 3
730 VDIS=((INT(RND*5)+1)*4)-1
740 HDIS=(INT(RND*7)+1)*4
750 CALL HCHAR(VDIS,HDIS,32)
760 NEXT A
770 IF D=0 THEN 570
780 IF C=49 THEN 1000
790 IF C=50 THEN 820
800 IF C=57 THEN 880
810 IF C=48 THEN 940
820 IF VERT=19 THEN 570
830 CALL HCHAR(VERT,HORI,32)
840 CALL GCHAR(VERT+4,HORI,AB)
850 IF AB=120 THEN 2000
860 VERT=VERT+4
870 GOTO 570
880 IF HORI=4 THEN 570
890 CALL HCHAR(VERT,HORI,32)
900 CALL GCHAR(VERT,HORI-4,AB)
910 IF AB=120 THEN 2000
920 HORI=HORI-4
930 GOTO 570
940 IF HORI=28 THEN 570
950 CALL HCHAR(VERT,HORI,32)
960 CALL GCHAR(VERT,HORI+4,AB)
970 IF AB=120 THEN 2000
980 HORI=HORI+4
190 GOTO 570
1000 IF VERT=3 THEN 570
1010 CALL HCHAR(VERT,HORI,32)
1020 CALL GCHAR(VERT-4,HORI,AB)
1030 IF AB=120 THEN 2000
1040 VERT=VERT-4
1050 GOTO 570
1060 IF VERT=VBOMB THEN 1190
```

DEADLINE

THE AIM of the game is to find the Atomic Bomb randomly placed in a building and to disarm it in 300 seconds. To help, you have a Geiger counter which clicks faster the nearer you get to the bomb.

When you run the program you will see a plan of the building, but you can't see the bomb. You are the yellow man in the top left-hand corner of the building and you move through the building by using keys: 1-up; 2-down; 9-left; 0-right. This is not all — you must also avoid capture by the Red Androids which appear and disappear at random. Once you find the Atomic Bomb you disarm it by finding the right code.

Nuclear Deadline runs on both the TI 99/A and the 99/4A, and was submitted by Mark Peters, 15, from Arlesey, Bedfordshire. His fastest time to date is 110 seconds. Can you beat that?

```
1070 IF VERT=VBOMB+4 THEN 1150
1080 IF HORI=HBOMB+4 THEN 1150
1090 IF HORI=HBOMB-4 THEN 1150
1100 IF VERT=VBOMB-4 THEN 1150
1110 IF HORI=HBOMB-8 THEN 1170
1120 IF HORI=HBOMB+8 THEN 1170
1130 IF VERT=VBOMB+8 THEN 1170
1140 IF VERT=VBOMB-8 THEN 1170
1150 DELAY=25
1160 GOTO 1230
1170 DELAY=34
1180 GOTO 1230
1190 IF HORI=HBOMB THEN 1240
1200 IF HORI=HBOMB+1 THEN 1220
1210 IF HORI=HBOMB-1 THEN 1220
1220 DELAY=12
1230 RETURN
1240 CALL HCHAR(VBOMB,HBOMB,112)
1250 CALL COLOR(11,14,1)
1260 CALL SOUND(100,880,0)
1270 CALL SOUND(150,660,5)
1280 FOR A=990 TO 660 STEP-10
1290 CALL SOUND(-300,A,0)
1300 NEXT A
1310 CALL SCREEN(9)
1320 FOR A=1 TO 8
1330 CALL COLOR(A,16,1)
1340 NEXT A
1350 PRINT " YOUR TROUBLES ARE"
1360 PRINT
1370 PRINT " NOT OVER YET!!"
1380 PRINT
1390 PRINT " YOU MUST BREAK THE"
1400 PRINT
1410 PRINT " 4 DIGIT DISARMING CODE"
1420 PRINT " ENTER THE NUMBER"
1430 PRINT " 0000-9999"
1450 FOR A=1 TO 7
1460 PRINT
1470 NEXT A
1480 CODE=INT(RND*9999)+1
1490 PRINT "  TIME TO DETONATION:";TIME
1500 IF TIME=0 THEN 1860
1510 TIME=TIME-10
1520 PRINT "  IT TAKES 10 SECONDS"
1530 PRINT "  FOR THE BOMB TO VERIFY"
1540 PRINT "  THE CODE"
1550 INPUT "ENTER CODE-":D
1560 IF D>CODE THEN 1590
1570 IF D<CODE THEN 1650
1580 IF D=CODE THEN 1710
```

```
1590 PRINT "  CODE NUMBER TOO HIGH!"
1600 PRINT
1610 IF 10=TIME THEN 1630
1620 GOTO 1490
1630 PRINT "  HURRY UP OR YOUR DEAD"
1640 GOTO 1490
1650 PRINT "  CODE NUMBER TOO LOW!"
1660 PRINT
1670 IF 10=TIME THEN 1690
1680 GOTO 1490
1690 PRINT "  TIME IS RUNNING OUT!"
1700 GOTO 1490
1710 CALL SCREEN(3)
1720 PRINT "  WELL DONE!!"
1730 PRINT
1740 PRINT "  YOU DISARMED THE BOMB"
1750 PRINT
1760 PRINT "  WITH";TIME;"SECONDS TO GO"
1770 PRINT "  PLAY AGAIN ? Y/N"
1780 CALL KEY(0,C,D)
1790 IF D=0 THEN 1780
1800 IF C=89 THEN 10
1810 IF C=78 THEN 1840
1820 PRINT "  ANSWER Y/N"
1830 GOTO 1780
1840 CALL CLEAR
1850 STOP
1860 FOR A=1 TO 5
1870 CALL SCREEN(10)
1880 CALL SOUND(500,-5,0)
1890 NEXT A
1900 FOR A=1 TO 8
1910 CALL COLOR(A,16,1)
1920 NEXT A
1930 PRINT "  YOU RAN OUT OF TIME"
1940 PRINT
1950 PRINT "  YOU ARE DEAD!"
1960 PRINT
1970 GOTO 1770
1980 IF HORI=HMINE THEN 2000
1990 GOTO 770
2000 FOR A=800 TO 760 STEP-1
2010 CALL SOUND(-10,A,0)
2020 NEXT A
2030 PRINT "  YOU HAVE BEEN CAPTURED"
2040 PRINT "  BY THE ANDROIDS!"
2050 PRINT "  YOU HAVE FAILED"
2060 FOR A=1 TO 7
2070 PRINT
2080 NEXTA
2090 GOTO 1770
```

HI ! I'M BRAINY and I really rate computers. I'm in Load Runner every issue so write to me at 196-200 Balls Pond Road, London N1 4AQ and I'll do my best to answer any questions you have.

Remember, Brainy's the name and, by the way, I will pay £1 to anyone whose name is mentioned. Write away!

BRAINY'S BRAINBOX

Expensive cartridges

I OWN an Atari 400 and would like to know why the cartridge and cassette games for it are so expensive. It always takes me so long to save up that much.

Paula Wexford, Derby

THE CARTRIDGES have a special ROM chip with the game programmed in so that it can't be rubbed out. These are very efficient and reliable, and (as you know) very quick in loading, but are expensive to make. The prices stay sky-high as there isn't much competition so the buyers have no choice—they must buy either the expensive ones or none at all. The cassettes are expensive again because of the lack of competition and because Atari don't want people to stop buying cartridges. When more software companies come into the market the prices should drop fast.

* * *

Have micro — will travel?

WE ARE MOVING to Canada in October. Can we take our computer with us, and buy the software there?

Mark Gray, Stratford

IT WOULD BE fairly easy to take the computer with you; however once there the computer would have to be adapted for the different voltage and TV sets in Canada. Computers which are on sale there have software available, so you will be all right if you have an Apple, Vic 20, ZX81 (which is called TS1000 out there), Spectrum (TS2000) or T199. The tapes may not all work on the English models, however.

It might be easier and more sensible to sell your computer before you leave, and then to buy one in Canada, which you will know will work there without any problems.

* * *

Pocket-size computers

I HAVE just been on holiday to America and whilst I was there, I saw some calculator-size computers. I was wondering whether I could buy one in England.

Anthony Moore, Rochester

THOSE COMPUTERS are made by Sharp, Casio, Epson and Tandy and can be bought in most large computer shops. The best ones cost several hundred pounds, but it is possible to buy less sophisticated ones for about £130. Some people say those are the computers of the future.

Bargain hunting

I BELONG to a small computer club that is just starting and we are trying to build up our collection of games (both on disks and on tape). Can you tell me where we could obtain inexpensive games, perhaps wholesale?

Geraldine Foster, Mevagissey

YOU COULD try writing to the manufacturers, asking them if you could have cheaper tapes because you are starting a club, or you could ask for a catalogue and order form. You could also attend computer fairs and ask manufacturers there, and look out for cheap tapes and disks. There are clubs which issue weekly magazines and sell tapes and disks that are not too expensive. These include the Sinclair Owners' Software Library which provides a catalogue and you can order games and test them before buying. The address is: The Sinclair Owners' Software Library, Liss, Hants, GU33 7DD.

* * *

No hire facilities

I AM a great fan of *Load Runner* but, unfortunately, have not got a computer of my own. My dad doesn't think that computers are worth the money, and, in order to persuade him otherwise is there any way I could hire a computer for a week or so?

Francis Bagley, Northumberland

UNLESS you are very lucky and live near one of the few small, local computer shops which hire out computers as well as selling them—in which case you would probably know of them—there is not yet any famous widespread chain that provide hire facilities. Most shops—W H Smith's, Dixons and Lasky's for example—have computers on display which you can use, but not to take home, and they don't like children using them too much. Try asking your pals at school if they have a computer that you can borrow for a short time, or go to their house with your dad and have a little go on their computer. If your school has computers you could see if the teacher in charge would let you borrow one for the weekend.

TRUMBUL'S WORLD

SIMIAN AND **THE HUNTER** HAVE ENTERED THE COMPUTER-CREATED ADVENTURE WORLD OF **PROGRAMMER TRUMBULL.** THEY ARE PURSUING HIS CHILDREN, WHO ARE THEMSELVES SEEKING THE FIVE PARTS OF A MYSTERIOUS CLASP.

SIMIAN AND THE HUNTER ARRIVE IN **TRUMBULL'S WORLD.**

EXTRA-ORDINARY! THAT A HUMAN MIND COULD CREATE ALL THIS.

WE ALWAYS KNEW TRUMBULL WAS DANGEROUS. I DON'T THINK WE REALISED QUITE **HOW** DANGEROUS.

MMM. WHAT'S THAT NOISE?

I COULDN'T EAT ANOTHER THING.

WAIT... **WHAT'S THAT?**

YOU EAT SOME OF THE FOOD

YOU EAT SOME OF THE FOOD

THEY FOLLOW THE SOUND UNTIL...

IT'S THE SEA!

AND THAT LOOKS LIKE AN ISLAND. C'MON

D'YOU THINK IT'S SAFE?

LET'S FIND OUT...

WITH NO WARNING, THE BOAT SPEEDS AWAY!

NEXT TIME I THINK I'LL WALK!

SCRIPT: ROB BEATTIE

ARTWORK: MALCOLM STOKES

LETTERS: STEVE POTTER

I WONDER WHAT'S IN STORE FOR US HERE?
WE'LL SOON KNOW. LOOK.

YOU REACH THE ISLAND THERE IS A SINISTER-LOOKING BLACK SPIKE HERE
take spike
WE MIGHT AS WELL. IT MIGHT COME IN USEFUL.

SPEEDING THROUGH THE MURKY WATER...
IT'S FUNNY, JAN. BUT IT'S ALL HAPPENING SO FAST, YOU DON'T HAVE TIME TO GET SCARED.
I WAS THINKING THE SAME THING. IT'S ODD HOW QUICKLY WE ADAPT.

BUT JAN IS NOT THE ONLY ONE TO ADAPT...
THIS BOX CONTROLS THEM. IT DISTORTS TRUMBULL'S PROGRAM AND ENABLES ME SUBTLY TO ALTER VARIOUS RULES IN THE GAME.
A USEFUL TOOL.

MORE THAN THAT. NOW ITS POWER IS WEAK. BUT THE LONGER I STAY THE GREATER GROWS ITS STRENGTH.
ENOUGH. THEY WENT WEST. LET US FOLLOW BEFORE THE SCENT DIES.

LEAVING THE BOAT, THEY MAKE THEIR NEXT DISCOVERY.
IT'S A BARROW. WHERE THEY USED TO BURY PEOPLE.

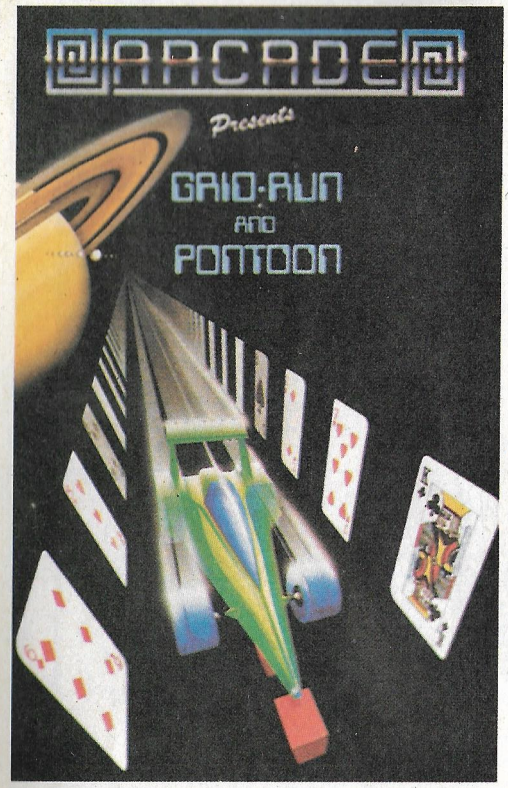
WHAT'S THAT?
I BET I KNOW.

BUT AS MARC PUTS HIS PLAN INTO ACTION...
NO, MARC! THE DAMN THING'S MELTING!

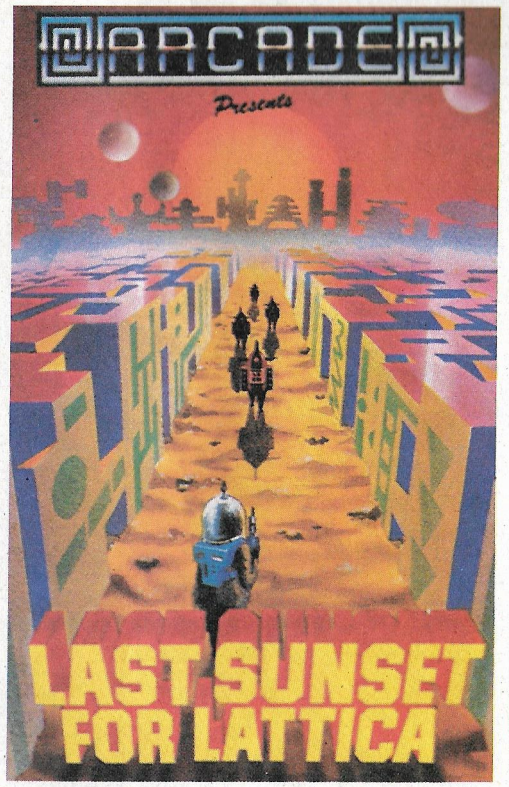
YOU MEAN I LUGGED THIS ALL THE WAY HERE AND IT'S USELESS?
YOU THROW THE SPIKE AT THE TREE THERE IS A PIECE OF THE CLASP HERE (WELCOME TO CHECK TWO)
I DON'T BELIEVE IT!
where is clasp? YOU'LL HAVE TO START RIGHT UNDER HIS NOSE IF YOU WANT TO RING THE DOOR
BUT I HAVEN'T GOT ANY-THING UNDER MY NOSE.
MAYBE IT DOESN'T MEAN YOU... LISTEN.
IN THE CLEARING BEHIND THE TREE...
OH DEAR. I THINK IT MEANS UNDER HIS NOSE.
ANY OTHER BRIGHT IDEAS?
WE'VE NOT MISSED ANYTHING, I'M SURE. AND WE'VE PICKED UP AND KEPT EVERY OBJECT SO FAR. OH NO... THE SPIKE.
BLAST! I SUPPOSE I HAVE TO GET IT.

AS MARC RETURNS...
WHAT'S GOING ON? IS HE HAVING A BREAK?
I THINK IT'S THE SPIKE. I'M COMING DOWN.
AN AMAZING TRANSFORMATION!
SO THE SPIKE CALMS HIM DOWN.
AND LETS US TAKE THIS.
JAN TAKES THE RING... AND THE BULL GOES FREE!
BACK AT THE DOOR THEY ATTACH THE RING.
NOW GET THE SPIKE AND SLIP IT THROUGH THE RING.
THE THIRD SHARD!
THIS IS GETTING TOO EASY.
BUT THE RULES OF TRUMBULL'S WORLD ARE CHANGING!
SO CHARACTERS IN THE GAME CAN DIE... INTERESTING.
NEXT: FIRE AND ICE!

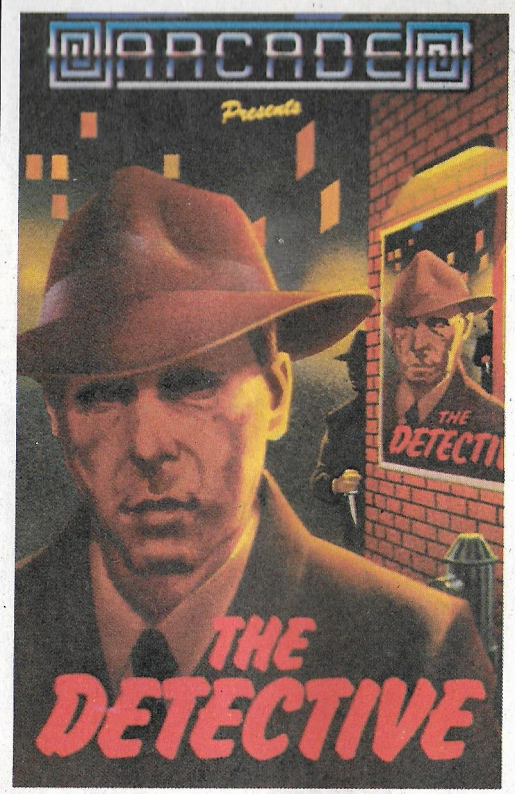
THE ARCADE COLLECTION



GRID RUN is a high resolution, fast machine code game using the spectrums sound and colour to the full. Set in a maze you must avoid oncoming android cars bent on your destruction. Bonus car every 10,000 points "Famous Five" hall of fame, increasing speed and difficulty. There is even a hold button to get your breath back.
PONTOON included on side B absolutely free. Pontoon has full graphical representations of all the cards including King, Queen, Jack, "Intelligent" play of aces, and full analysis of results at end of each game. REF. GRID.



LAST SUNSET FOR LATTICA (Original) is a true graphical adventure game in real time. Your aim is to defuse a bomb hidden somewhere in a highly complicated maze avoiding many well armed androids along the way. Extra lives are there for the taking, so are the keys to take you to the next level and all the while time is running out for the little Planet of Lattica. REF. SUN.



THE DETECTIVE (Original) You thought it was just another "Take the secrets from a Safe and Run" job but the mob thought differently. They will try everything to stop you this time, if madmen, lasers, bombs, dynamite, daggers, barrels, blister bombs, crates, helicopters, jets and fourteen other levels do not get you, you might just make it. Opening the safe has its pitfalls too. Fast moving, m/c game with excellent graphics and sound. A very addictive game. REF. DET.

RAIDER OF THE CURSED MINE (Original) Greed drove you down into the old diamond mine, sheer determination and luck is the only way out again. Lifts help you, so do lamps, and diamonds can be worth a fortune but beware of the evils that lurk deep in the mine. Trolls who throw boulders at you, spiders who eat you, ghosts who show no mercy and bats who steal things, add to this a time bonus and you have an exciting Arcade quality game. Reach level 32 and escape to the big outside world. REF. RAID.

All these games are available for the ZX Spectrum 48K for the incredible price of only **£5.50** including P&P VAT etc. Just complete the mail order form for prompt dispatch by return of post.

Arcade are committed to original game concepts so look out for new titles in the Arcade range. Trade enquiries welcome. Phone Orpington 35639 anytime or write to Arcade Software Ltd, Technology House, 32 Chislehurst Road, Orpington, Kent BR6 0DG.

TO: ALL MAIL ORDERS

Qty.	Item	Item Price £	Total £

DON'T FORGET YOU CAN ALWAYS ORDER ON THE TELEPHONE WITH YOUR CREDIT CARD. TRADE ENQUIRIES WELCOME.

*I enclose a cheque/postal order payable to ***ARCADE SOFTWARE LTD,*** for £.....*Please charge to my Access/Barclaycard account no.

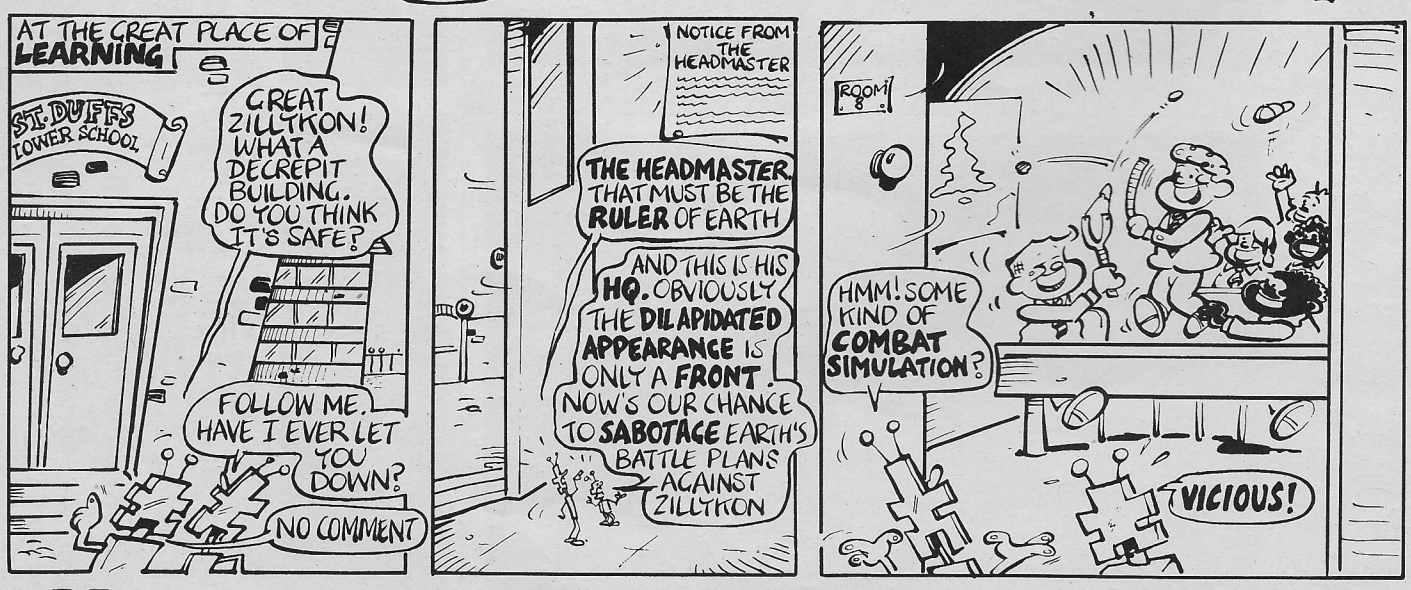
*Please delete/complete as applicable.

Signature _____

Name: Mr/Mrs/Miss _____

Address _____

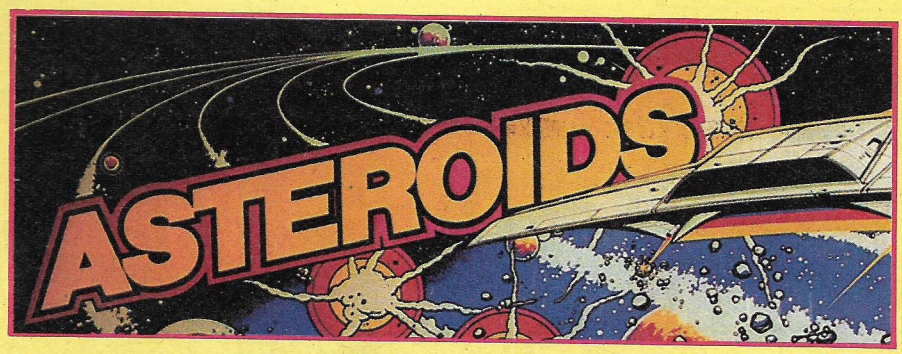
THE ADVENTURES OF ROM AND RAM



LOOK OUT! TEACHER'S COMING!!
HERE WE GO AGAIN!
WRITE AN ESSAY ENTITLED "WHAT I DID DURING MY HOLIDAYS"
TYPICAL! SAME BORING OLD LESSONS!
DURING BREAK...
THEY'VE GONE. NOW OUR CHANCE!
WHAT'S THAT OVER THERE?

TACTICAL BATTLE PLANS HELP ME TO ERASE THEM!
THE GREAT PIXEL WILL REWARD US WELL FOR THIS- POSSIBLY EVEN AN ORDER OF THE ZILLYKON EMPIRE!
PHEW! I'M WIPED OUT! BETTER HURRY, RAM, THE HUMANOIDS ARE COMING BACK!
TEACHER IS A WALLY
I'LL JUST RUB OUT THIS LAST VITAL PIECE
TEACHER IS NOT AMUSED...
WHO IS RESPONSIBLE FOR THIS? SPEAK UP!

RIGHT, YOU LOT! YOU CAN ALL WRITE 500 LINES BY TOMORROW MORNING!!
OH NO!
GROAN!
NOT FAIR!
MOAN!
THAT EVENING
I'VE GOT AN IDEA. LET'S GET THE COMPUTER TO WRITE OUR LINES
BRILLIANT! I'LL PROGRAM IT
!!!!
INSIDE THE COMPUTER
I must not wipe the blackboard during break
THESE HUMANOIDS HAVE DEVISED SOME EVIL PUNISHMENTS...
OH, STOP COMPLAINING! WE'RE LUCKY IT WASN'T 625 LINES!
ANDY ROBB
ROM & RAM LINE UP AGAIN NEXT ISSUE!



THE FIRST big game to come out of the Atari stables was Asteroids, manufactured at Atari Headquarters in Sunnyville, California, in 1979 with several million machines now scattered all over the world.

Graphically the game is very simple, the screen completely black with the asteroids being a bright white outline only. This is compensated by the extremely smooth movement of all objects.

The player controls a triangular-shaped spaceship in the centre of the screen and has such features as left and right rotation, thrust, fire and Hyperspace at his disposal. The asteroids drift about the screen and the player has to destroy all on one screen before moving on to the next wave. That is extremely difficult because the asteroids when they are hit once, break in half, and then half again before eventually being destroyed. Not only does the player have to put up with space rubble drifting in from all sides, he also has to contend with two types of UFO. The larger UFOs are relatively easy to hit and often crash into asteroids giving the impression that the alien pilot must be space drunk. The smaller ones are more cautious; the pilots on these ships are wide awake, able to dodge your photon fire and return fire with alarming accuracy.

Asteroid's highest *recorded* score is 46 million, achieved in 2½ days' non-stop play. To achieve that the player must have used a tactic called 'Lurking'. To be a good Lurker, leave one half-asteroid on the screen and move to the safe area, located on the top right of the screen; point your spaceship in towards the corner and wait for an infinite number of small UFOs to appear. If a UFO appears at the bottom left, top left or bottom right, just fire in the opposite direction and your photon torpedo will 'wraparound' the screen and hit its target; obviously if a UFO appears in the top right corner you are already on target. 1,000 points are awarded for each UFO destroyed and a new life is earned every 10,000 points.

Software

ASTEROIDS for the Atari 400/800 and the VCS are virtually the same; unlike the arcade game the drifting asteroids are solid instead of outlined.

The BBC Model B computer has Meteors, manufactured by Acorn Soft; that has outlined asteroids and is more like the arcade original.

For the Spectrum, there is Meteor Storm by Quicksilva, again with outlined asteroids. Sinclair's official asteroids game by Psion is Planetoids.

For ZX-81 owners there is a version of asteroids with five speed settings by the Electric Pencil Company of Hull.

Ratings out of Ten:

Atari 400/800	6
Atari VCS	6
BBC Model B	8
ZX Spectrum (Meteor Storm)	8
(Planetoids)	7
ZX 81	8

Providing processor power to The Controller in publishing Load Runner were Bill Scolding (editor), David Hogan (advertisement manager) and June Mortimer (administration). Chris Winch, Harold Mayes MBE, Terry Cartwright and Richard Hease linked into the system. The corporate might of ECC Publications of 196–200 Balls Pond Road, London N1 4AQ was utilised continually. Printout by Cradley Print PLC, Warley, West Midlands. Distributed by Spotlight Magazine Distribution Limited, 01-607 6411. ISSN 0264-8369. © 1983 Load Runner.